THIRTY-SIXTH ANNUAL CATALOGUE

OF THE

Officers, Students and Graduates

OF THE

KANSAS STATE

Agricultural College

MANHATTAN,

1898-1899.

AND ANNOUNCEMENTS FOR

1899-1900.

W. Y. MORGAN, STATE PRINTER,
TOPEKA, KAN.
1899.

Terms and Vacations.

Fall Term, 1899, Thirteen Weeks.

WEDNESDAY, SEPTEMBER 13.—Examination for admission, at 9 A. M.
THURSDAY, SEPTEMBER 14.—College year begins.
TUESDAY, SEPTEMBER 19.—Short course in domestic science begins.
SATURDAY, OCTOBER 28.—Examination.
SATURDAY, DECEMBER 2.—Annual exhibition of the Alpha Beta Society.
THURSDAY AND FRIDAY, DECEMBER 14, 15.—Examination at close of fall term.
DECEMBER 16 TO JANUARY 2.—Winter vacation.

Winter Term, 1900, Twelve Weeks.

TUESDAY, JANUARY 2.—Examination for admission, at 9 A. M.
WEDNESDAY, JANUARY 3.—Winter term begins.
WEDNESDAY, JANUARY 3.—Short courses in agriculture, horticulture and dairying begin.
SATURDAY, JANUARY 27.—Annual exhibition of the Hamilton Society.
SATURDAY, FEBRUARY 10.—Examination.
SATURDAY, MARCH 10.—Annual exhibition of the Webster Society.
THURSDAY AND FRIDAY, MARCH 22, 23.—Examination at close of winter term.

Spring Term, 1900, Eleven Weeks.

MONDAY, MARCH 26.—Examination for admission, at 9 A. M.
TUESDAY, MARCH 27.—Spring term begins.
SATURDAY, APRIL 21.—Annual exhibition of the Ionian Society.
SATURDAY, MAY 5.—Examination.
TUESDAY AND WEDNESDAY, JUNE 12, 13.—Examination at close of year.
JUNE 10 TO 14.—Exercises of Commencement week.
THURSDAY, JUNE 14, AT 10:30 A. M.—Commencement.
JUNE 15 TO SEPTEMBER 19.—Summer vacation.

Fall Term, 1900.

WEDNESDAY, SEPTEMBER 19.—Examination for admission, at 9 A. M.
THURSDAY, SEPTEMBER 20.—College year begins.

Board of Regents.

HON. E. T. FAIRCHILD (1903)*, *President*,
Ellsworth, Ellsworth county.

HON. J. S. McDOWELL (1901), *Vice-President*,
Smith Center, Smith county.

HON. W. T. YOE (1901), *Treasurer*,
Independence, Montgomery county.

HON. WM. HUNTER (1903), *Loan Commissioner*,
Blue Rapids, Marshall county.

HON. MRS. SUSAN J. ST. JOHN (1901),
Olathe, Johnson county.

HON. CARL VROOMAN (1901),
Parsons, Labette county.

HON. J. M. SATTERTHWAITE (1903),
Douglass, Butler county.

ACTING PRES. E. R. NICHOLS (*ex officio*), *Secretary*.

MISS LORENA E. CLEMONS, *Assistant Secretary*,
Manhattan.

*Term expires.

Board of Instruction, 1898-'99.

FACULTY.

THOMAS ELMER WILL, A. M. (*Harvard*), PRESIDENT,
Professor of Economics and Philosophy.

WM. H. PHIPPS, B. S. (*Kansas State Agricultural College*), SECRETARY,
Professor of Bookkeeping, Commercial Law, and Accounts. (After Febrnary 20, 1899.)

HENRY M. COTTRELL, M. S. (*Kansas State Agricultural College*),
Professor of Agriculture, Superintendent of Farm.

ALBERT S. HITCHCOCK, M. S. (*Iowa State Agricultural College*),
Professor of Botany.

JULIUS T. WILLARD, M. S. (*Kansas State Agricultural College*),
Professor of Applied Chemistry.

GEORGE F. WEIDA, PH. D. (*Johns Hopkins*),
Professor of Pure Chemistry.

EDWARD W. BEMIS, PH. D. (*Johns Hopkins*),
Professor of Economic Science.

DUREN J. H. WARD, PH. D. (*Leipsic*),
Professor of English Language and Literature.

ARNOLD EMCH, PH. D. (*University of Kansas*),
Professor of Graphic Mathematics.

FRANK PARSONS, B. C. E. (*Cornell University*),
Professor of History and Political Science.

E. E. FAVILLE, M. S. A. (*Iowa State Agricultural College*),
Professor of Horticulture and Entomology, Superintendent of Orchards and Gardens.
(Until January 1, 1899.)

MISS MINNIE E. STONER, B. S. (*South Dakota Agricultural College*),
Professor of Household Economics, Superintendent of Domestic Science Departments.

JOHN D. WALTERS, M. S. (*Kansas State Agricultural College*),
Professor of Industrial Art and Designing.

MISS MARY F. WINSTON, PH. D. (*Goettingen*),
Professor of Mathematics.

JOSEPH D. HARPER, M. S. (*Rose Polytechnic*),
Professor of Mechanics and Engineering, Superintendent of Workshops.

ALEXANDER B. BROWN, (*Boston Music School*), A. M. (*Olivet*),
Professor of Music.

FREDRIC AUGUSTUS METCALF, O. M. (*Emerson College of Oratory*),
Professor of Oratory.

ERNEST R. NICHOLS, D. B. (*Iowa State Normal School*), A. M. (*State University of Iowa*),
Professor of Physics.

PAUL FISCHER, B. AGR., M. V. D. (*Ohio State University*),
Professor of Veterinary Science.

CHARLES S. DAVIS (*Kansas State Normal School*),
Superintendent of Printing.

MISS HARRIET HOWELL (*Pratt Institute*),
Superintendent of Sewing.

MISS ALICE RUPP,
Instructor in English.

MISS JOSEPHINE C. HARPER,
Instructor in Mathematics.

MISS HELEN J. WESCOTT,
Librarian.

Assistants and Foremen.

WILLIAM L. HOUSE,
Foreman of Carpenter Shop.

R. W. CLOTHIER, M. S.,
Assistant in Chemistry.

WILLIAM H. MOORE, M. S.,
Foreman of Greenhouse.

CHARLOTTE J. SHORT, M. S.,
Assistant in Household Economics.

MRS. MARY L. HANSON,
Superintendent of Dining Hall.

ENOS HARROLD,
Foreman of Iron Shop.

MARGARET J. MINIS,
Assistant Librarian.

CHARLES W. PAPE, B. S.,
Assistant Curator of Museum.

LORENA M. HELDER, M. T., B. S.,
Assistant in Music.

MRS. WINNIFREDE W. METCALF,
Assistant in Oratory.

J. D. RICKMAN, I. T. U.,
Foreman of Printing-office.

ORA G. YENAWINE, B. S.,
Assistant in Sewing.

R. B. MITCHELL,
Cadet Major and Acting Commandant

ROYAL S. KELLOGG, B. S.,
General Assistant.

J. M. WESTGATE, B. S.,
General Assistant.

S. N. CHAFFEE, B. S.,
Principal Preparatory Department.

Other Officers.

WILLIAM CANFIELD LEE, A. B.,
Private Secretary to President.

LORENA E. CLEMONS, B. S.,
Assistant Secretary.

OLIVE LONG, B. S.,
Clerk in Post-office.

JACOB LUND, M. S.,
Engineer.

EUGENE EMRICK,
Janitor.

Experiment Station Staff.

Council.

THOS. E. WILL, A. M., Chairman, *ex officio.*
H. M. COTTRELL, M. S., Agriculturist.
A. S. HITCHCOCK, M. S., Botanist.
J. T. WILLARD, M. S., Chemist.
E. E. FAVILLE, M. S. A.,* Horticulturist and Entomologist.
PAUL FISCHER, B. AGR., M. V. D., Veterinarian.

W. H. PHIPPS, B. S., Secretary.

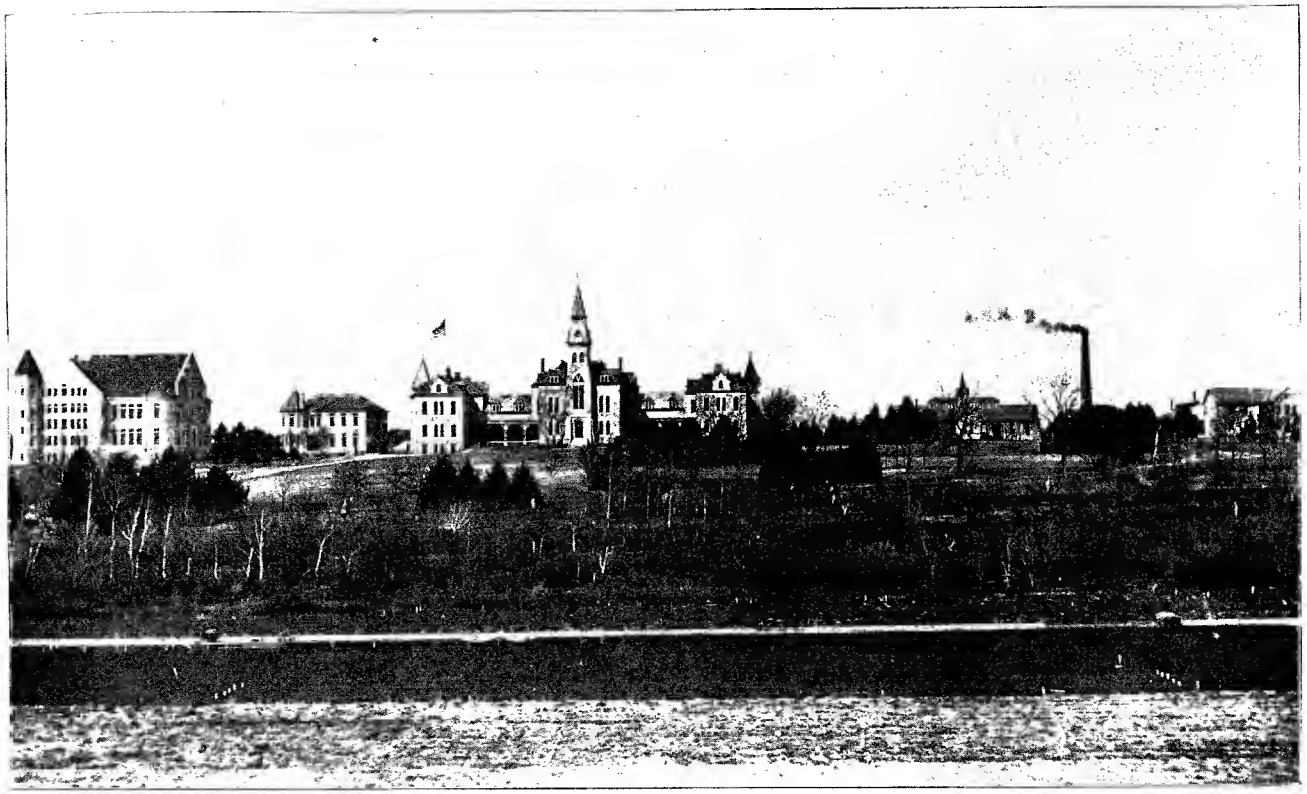
Assistants.

F. C. BURTIS,† M. S., Assistant in Feeding and Field Work.
J. G. HANEY, B. S., Acting Assistant in Feeding and Field Work.
D. H. OTIS, M. S., Assistant in Dairying.
GEO. L. CLOTHIER, M. S., Assistant Botanist.
ROBT. W. CLOTHIER, M. S., Assistant Chemist.
PERCIVAL J. PARROTT,‡ A. M., Assistant Entomologist,
WM. L. HALL,§ M. S., Assistant Horticulturist.
CHAS. W. PAPE, Assistant in Veterinary Department.

*Until January 1, 1899.
†Absent on leave since January, 1899.
‡In charge of the entomological department since January, 1899.
§In charge of the horticultural department since January, 1899.

Student Assistants.

BONNIE F. ADAMS, Library.
M. C. ADAMS, History and Political Science.
F. W. BOBBITT, Mechanics, Surveying.
R. H. BROWN, B. S., Music.
LOUISE BURNHAM, Library.
J. A. CONOVER, B. S., Dairying.
G. C. HALL, B. S., Arithmetic.
J. G. HANEY, Field and Feeding Experiments.
F. J. HOWARD, Gymnasium, Military.
L. B. JOLLEY, Library.
A. T. KINSLEY, Veterinary, Chemistry.
J. M. KESSLER, Horticulture.
ROSS LONG, United States History, Political Science, and Economics.
W. E. MATHEWSON, Chemistry.
R. B. MITCHELL, Major of Battalion.
R. T. NICHOLS, Horticulture.
MARY B. PRITNER, Chemistry.
VIOLET QUINT, B. S., Geography, Grammar.
D. W. RANDALL, Surveying.
GRACE SECREST, B. S., Library.
O. R. SMITH, B. S., Secretary's Office.
H. L. SNODGRASS, Algebra.
LOUISE SPOHR, Grammar.
D. B. SWINGLE, Botany.
MIRIAM SWINGLE, Grammar.
W. G. TULLOSS, Surveying.
ED. H. WEBSTER, B. S., Dairying, Bookkeeping.
J. M. WESTGATE, B. S., Botany, Surveying, Algebra.
A. D. WHIPPLE, B. S., English, Library.
ADELAIDE WILDER, B. S., Library.
F. O. WOESTEMEYER, Library.



GENERAL VIEW FROM EAST.

The College Battalion.

The following is the roster of the commissioned and non-commissioned officers of the College Battalion for 1898–'99:

ROBERT B. MITCHELL,
Major and Acting Commandant of Cadets.

STAFF.

CHARLES EASTMAN.....First Lieutenant and Adjutant.
FLOYD HOWARD.....First Lieutenant and Quartermaster.
R. E. EASTMAN.....Sergeant-major.
H. S. BOURNE.....Color-sergeant.
PAUL PIERSOL.....Drum-major.
WAYNE RIDDLE.....Chief Trumpeter.
R. H. BROWN.....Principal Musician.

OFFICERS BY COMPANIES.

RANK.	"A" company.	"B" company.	"C" company.	"D" company.
Captains.....	A. E. Blair.....	F. S. Shelton.....	R. T. Nichols.....	J. A. Harvey.
First Lieutenants..	L. E. Potter.....	H. D. Orr.....	R. McKee.....	A. I. Bain.
Second Lieutenants,	C. A. Scott.....	Geo. Greene.....	D. B. Swingle....	G. W. Owens.
First Sergeants.....	H. F. Butterfield,	G. W. Hanson....	W. F. Lawry.....	B. Thompson.
Second Sergeants...	B. Poole.....	Jno. Powers.....	C. C. Turner.....	H. R. Riley.
Third Sergeants	E. C. Cook.....	B. F. Mudge.....	R. A. Bower.....	J. H. Oesterhaus.
Fourth Sergeants...	E. V. Roe.....	C. R. Edwards...	H. A. Avery.....	Fred Myers.
Fifth Sergeants.....	C. J. Burson.....	H. A. Dieball....	J. T. Stafford....	H. Adams.
First Corporals.....	D. C. Deming....	F. W. Haselwood,	R. S. Cole.....	H. T. York.
Second Corporals...	H. Baker.....	E. E. Chronister,	H. N. Vinall.....	C. Davidson.
Third Corporals....	H. H. Fay.....	R. F. Triplet.....	C. F. Smith.....	C. A. Gingery.
Fourth Corporals...	J. F. Ross.....	J. D. Hansen.....	E. H. Zirkle.....	J. E. Snyder.
Fifth Corporals.....	R. Faris.....	V. M. Emmert....	C. D. Blachly....	C. O. Sparks.
Sixth Corporals.....	L. Rigg.....	H. C. Williams...	E. N. Rodell.....	H. P. Richards.

Students.

POSTGRADUATES.

NOTE.—Studies pursned during the year printed in italic.

CANDIDATES FOR MASTER'S DEGREE, 1899.

George L. Clothier, B. S. '92.....*Botany, Horticulture.*
Vera, Wabaunsee county.

Robert W. Clothier, B. S. '97.....*Chemistry, Agriculture.*
Vera, Wabaunsee county.

William Logan Hall, B. S. '98.....*Horticulture, Botany.*
Anthony, Harper county.

Charles Pickney Hartley, B. S. 92.....*Horticulture, Entomology, Botany.*
Manhattan, Riley county.

Royal S. Kellogg, B. S. '96.....*Economics, Mathematics, Horticulture.*
Fay, Russell county.

John Minton Westgate, B. S. '97.....*Botany, Drawing, Mathematics.*
Westgate, Geary county.

NON-RESIDENT.

John Bitting Smith Norton, B. S. '96...*Botany, Horticulture.*
St. Louis, *Missouri.*

Raymond Haines Pond, B. S. '98.....*Botany, Horticulture.*
Ann Arbor, *Michigan.*

Fannie Elizabeth (Waugh) Davis, B.S.'91, *Botany, Drawing.*
Ithaca, *New York.*

IN COURSE LEADING TO MASTER'S DEGREE.

Samuel John Adams, B. S. '98.....*Oratory, General History, Music, Architecture, Economics.*
Marvin, Phillips county.

John Alfred Conover, B. S. '98.....*Agriculture, Bacteriology.*
Sabetha, Nemaha county.

Anna Phillipina Engel, B. S. '97.....*Household Economics, Botany, Drawing, German.*
Manhattan, Riley county.

George Clifton Hall, B. S. '96.....*Horticulture, Entomology, Oratory, Law.*
Mahattan, Riley county.

Jesse Baker Norton, B. S. '97.....*Botany, Drawing.*
Manhattan, Riley county.

Oliver Russell Smith, B. S. '98.....*Architecture, Graphics.*
Manhattan, Riley county.

Adelaide Frances Wilder, B. S. '98.....*Designing, Household Economics.*
Manhattan, Riley county.

NON-RESIDENT.

David E. Bundy, B. S. '89.....*Horticulture, Entomology, Botany.*
Randolph, Riley county.

Charles Francis Doane, B. S. '96.....*Agriculture, Bacteriology.*
Milwaukee, *Wisconsin.*

John Martin Pierce, B. S. '98 ..... *Horticulture, Botany.*
Healdsburg, *California.*

Willis Thomas Pope, B. S. '98 ..... *Horticulture, Botany, Drawing.*
Eureka, Greenwood county.

Charles Wesley Shull, B. S. '97..... *Economics, Agriculture.*
Manhattan, Riley county.

IN ADVANCED WORK NOT LEADING TO A DEGREE.

Cora Atwell, B. S. '97..... *Household Economics, Oratory.*
Manhattan, Riley county.

Robert John Barnett, B. S. '95..... *Physiology.*
Manhattan, Riley county.

Mary C. Bower, B. S. '83..... ..*German, Household Economics.*
Manhattan, Riley county.

Spencer Norman Chaffee, B. S. '91..... *Literature.*
Riley, Riley county.

Florence Ruth Corbett, B. S. '95..... *Household Economics, Botany.*
Manhattan, Riley county.

Flora (Day) Barnett, B. S. '95..... *Household Economics.*
Manhattan, Riley county.

Martha Fox, B. S. '97..... *Botany, History, Sewing.*
Manhattan, Riley county.

Mary Eliza Haulenbeck, B. S. '97..... *Household Economics, Botany.*
Manhattan, Riley county.

Ina Emma Holroyd, B. S. '97..... *Drawing.*
Manhattan, Riley county.

Henry Alba Martin, B. S. '98..... *Bacteriology, Dairying.*
Junction City, (Riley county.)

Alice Maude Melton, B. S. '98..... *Household Economics, Literature.*
Manhattan, Riley county.

Oliver Ezra Noble, B. S. '97..... *Mechanics, Mathematics.*
Manhattan, Riley county.

Ellen Elizabeth Norton, B. S. '96..... *Household Economics, Oratory,*
Manhattan, Riley county. *Literature.*

Lucy Junie Parks, B. S. '98..... *History, Sewing.*
Manhattan, Riley county.

Clara Jeanette Perry, B. S. '98..... *Household Economics.*
Manhattan, Riley county.

Violet U. Quint, B. S. (Iowa Ag. Coll.).. *Household Economics, Sewing.*
Lasita, Riley county.

Abner Davis Whipple, B. S. '98..... *English, German.*
Olivet, Osage county.

Ora Gertrude Yenawine, B. S. '95..... *Household Economics.*
Manhattan, Riley county.

NON-RESIDENT.

Thomas Walter Allison, B. S. '98..... *Horticulture, Entomology.*
Florence, Marion country.

FOURTH YEAR.

Name.	*Post-office and county (or state).*
Bonnie Frances Adams,	Marvin, Phillips.
Morrison Carpenter Adams,	Marvin, Phillips.
Delmer Akin,	Manhattan, Riley.
Melvia Fairetta Avery,	Manhattan, Riley.
Minerva Blachly,	Manhattan, Riley.
Albert Edwin Blair,	Quenemo, Osage.
Fred Winchester Bobbitt,	Manhattan, Riley.
Lillie Grace Bolton,	Paxico, Wabaunsee.
James Courtney Bolton,	Paxico, Wabaunsee.
Joseph Abbott Butterfield,	Topeka, Shawnee.
Willit Ramson Correll,	Manhattan, Riley.
Ernest Lerned Cottrell,	Wabaunsee, Wabaunsee.
Alfred Burton Dille,	Edgerton, Johnson.
Josephine Finley,	Randolph, Riley.
Harry Verne Forest,	Thayer, Neosho.
Francis Joseph Habiger,	Bushton, Rice.
John George Haney,	Courtland, Republic.
John Andrew Harvey,	Junction City, (Riley.)
Grace Edna Hill,	Phillipsburg, Phillips.
Hiram Adsit Holzer,	Girard, Crawford.
Charles Clifford Jackson,	Doylestown, *Pennsylvania.*
Fred Emanuel Johnson,	Melvern, Osage.
Harry Wallace Johnston,	Caldwell, Sumner.
Lot Parker Keeler,	Ottawa, Franklin.
John Martin Kessler,	Topeka, Shawnee.
Albert Thomas Kinsley,	Oakley, Logan.
Frank Elmer LaShelle,	Chepstow, Washington.
Christian Dagobert Lechner,	Morganville, Clay.
Clara Long,*	Manhattan, Riley.
Ross Long,	Manhattan, Riley.
Louisa Mary Maelzer,	Neuchatel, Nemaha.
Kate Anna Manley,	Council Grove, Morris.
Claud Masters,	Hillsdale, Miami.
Robert Burtice Mitchell,	Florence, Marion.
Jennie June Needham,	Lane, Franklin.
Roscoe Townley Nichols,	Liberal, Seward.
Fanny Gertrude Noyes,	Wabaunsee, Wabaunsee.
Harry Delphos Orr,	Riley, Riley.
George Washington Owens,	Alma, Wabaunsee.
Kate Paddock,	Manhattan, Riley.
Carrie Vashti Painter,	Meade, Meade.
Ella Emerson Peck,	Big Valley, *Texas.*
Anna C. Pfuetze,	Manhattan, Riley.
Andrew Pottorf,	Riley, Riley.
Mary Bly Pritner,	Keats, Riley.
Otto Independence Purdy,	Fairview, Brown.
Delmer William Randall,	Manhattan, Riley.
William Harry Roberts,	Walsburg, Riley.

*Deceased.

Name.	*Post-office and county (or state).*
Frank Sessions Shelton,	Brisbane, *Queensland.*
Harley Lee Snodgrass,	Manhattan, Riley.
Louise Mary Spohr,	Manhattan, Riley.
Stella Stewart,	Manhattan, Riley,
Annie Louisa Streeter,	Milford, Geary.
Fayette Charles Sweet,	Burlington, Coffey.
Leon Henry Thomas,	Oakley, Logan.
Nellie Towers,	Manhattan, Riley.
Otho Sprague True,	Vera, Wabaunsee.
James Otis Tulloss,	Rantoul, Franklin.
William Guy Tulloss,	Rantoul, Franklin.
George Franklin Wagner,	Enterprise, Dickinson.
Mary Lana Waugh,	Manhattan, Riley.
Charles Bernard White,	Waverly, Coffey.
Nannie Elizabeth Williams,	Edgerton, Johnson.
Alexander George Wilson,	Mapleton, Bourbon.
Frederick Otto Woestemeyer,	Bethel, Wyandotte.

THIRD YEAR.

Lizzie Jane Agnew,	Yates Center, Woodson.
Grace Allingham,	Manhattan, Riley.
Edgar McCall Amos,	Manhattan, Riley.
Elizabeth Edna Asbury,	Topeka, Shawnee.
Minnie Atwell,	Manhattan, Riley.
Effie Elizabeth Bailey,	Manhattan, Riley.
Alvah I. Bain,	Marysville, Marshall.
Harry M. Bainer,	Ottawa, Franklin.
Charlotte Almira Berkey,	Cleveland, *Missouri.*
John Harold Blachly,	Manhattan, Riley.
William Keller Blachly,	Leonardville, Riley.
Zina Leigh Bliss,	McPherson, McPherson.
Bettie Briggs,	Briggs, Geary.
Louie Brigham,	Randall, Jewell.
Beulah J. Brown,	Leavenworth, Leavenworth.
Nellie Burtner,	Manhattan, Riley.
Tom Melancthon Cannon,	White Eagle, *Oklahoma.*
Clarence Asa Chandler,	Argentine, Wyandotte.
Frederick Waldemar Christensen,	Mariadahl, (Riley.)
Ernest Mansel Cook,	Oakley, Logan.
Joseph Bryson Corbett,	Manhattan, Riley.
Charles McClain Correll,	Manhattan, Riley.
John Francis Crowl,	Chino, *California.*
Mary Elizabeth Crum,	Stockdale, Riley.
Amanda Culp,	Leavenworth, Leavenworth.
Jennie Maude Currie,	Manhattan, Riley.
Sarah Emily Davies,	Bala, Riley.
Laura Orminta DeArmond,	Manhattan, Riley.
Harry Leroy Dern,	Kingman, Kingman.
Homer Derr,	Baldwin, Douglas.
Mary Alberta Dille,	Edgerton, Johnson.
Charles Madison Drown,	Manhattan, Riley.

Name.	*Post-office and county (or state).*
Charles Eastman,	Ogden, Riley.
Robert Edward Eastman,	Bloomington, Osborne.
Jennie Edelblute,	Keats, Riley.
Ernest Christian Gasser,	Neosho, *Missouri.*
George Ogden Greene,	Lincoln, Lincoln.
Hermann Haffner,	Junction City, Geary.
Gustaf William Hanson,	Marquette, McPherson.
James William Harner,	Manhattan, Riley.
Lillian Estelle Hathaway,	Grant, Riley.
Daisy Gladys Hoffman,	Enterprise, Dickinson.
Edward Wilfred House,	Manhattan, Riley.
Floyd James Howard,	Manhattan, Riley.
Minnie Howell,	Manhattan, Riley.
Edith Huntress,	Manhattan, Riley.
Merton Raymond Johnson,	Olsburg, Pottawatomie.
Louis Berton Jolley,	Onaga, Pottawatomie.
Melville Eugene Joslin,	Randall, Jewell.
Harold Bigelow Kempton,	Wolfville, *Nova Scotia.*
Ina Bertha Kneeland,	Milford, Geary.
Raymond George Lawry,	Hollis, Cloud.
Walter Fisk Lawry,	Hollis, Cloud.
Erma Elizabeth Lock,	Riley, Riley.
Harvey McCaslin,	Barnes, Washington.
N. Ollie McCurry,	Milo, Lincoln.
Roland McKee,	Marysville, Marshall.
Madge Ruth McKeen,	Manhattan, Riley.
Nettie McLaren,	Altoona, Wilson.
Mary Eleanor Mathewson,	Topeka, Shawnee.
William Elmer Miller,	Potter, *Oklahoma.*
Margaret Jane Minis,	Manhattan, Riley.
Clarence William Morgan,	Hillside, Phillips.
Eugene Lawrence Morgan,	Hillside, Phillips.
Fred Byers Morlan,	White Rock, Republic.
Andrew Edward Oman,	Walsburg, Riley.
Joseph Lloyd Pancake,	Scott City, Scott.
Albert William Parrack,	Riley, Riley.
Ruthford Brockway Peck,	Oakland, Shawnee.
Paul du Chaillu Piersol,	Manhattan, Riley.
Leonard Poston,	Netawaka, Jackson.
Lutheran Eugene Potter,	Rose, Woodson.
Mary Sandell,	Manhattan, Riley.
William Stephen Sargent,	Riley, Riley.
Adelaide Short,	Fruita, *Colorado.*
Anna Augusta Siegrist,	Manhattan, Riley.
Milton David Snodgrass,	Manhattan, Riley.
Charles Chester Sowell,	Vassar, Osage.
Clara Spilman,	Manhattan, Riley.
Mabel Stewart,	Manhattan, Riley.
Cora Edith Swingle,	Manhattan, Riley.
Dean Brett Swingle,	Manhattan, Riley.
Perrin K. Symns,	Brenner, Doniphan.

Name.	*Post-office and county (or state).*
Barton Thompson,	Garrison, Pottawatomie,
Laura Helen Trumbull,	Manhattan, Riley.
Joseph Culver Van Orsdel,	Waterville, Marshall.
Jessie May Wagner,	Enterprise, Dickinson.
Luther Watts Waldraven,	Winkler, Riley.
Fred Walters,	Manhattan, Riley.
Nellie M. Winter,	Manhattan, Riley.

SECOND YEAR.

Rosa May Agnew,	Yates Center, Woodson.
Marian Allen,	Manhattan, Riley.
Cyrus Norton Allison,	Florence, Marion.
Cecil Girard Anderson,	Manhattan, Riley.
Robert George Andrews,	Marysville, Marshall.
Henry Albert Avery,	Manhattan, Riley.
Wallace W. Baird,	Milford, (Riley.)
Edna DeHaven Barnes,	Manhattan, Riley.
Hattie Beachum,	Manhattan, Riley.
George Ford Bean,	Alma, Wabaunsee.
Edwin Gaines Beckes,	Grand Haven, (Osage.)
Roy Robert Berkley,	Manhattan, Riley.
Charles Dallas Blachly,	Leonardville, Riley.
Elizabeth Blachly,	Manhattan, Riley.
Loua Adelle Blachly,	Manhattan, Riley.
Georgia Evaline Blaney,	Manhattan, Riley.
Bessie Sarah Bourne,	Delphos, Ottawa.
Harry S. Bourne,	Delphos, Ottawa.
Roy Allison Bower,	Eureka, Greenwood.
Warren Luther Bowlby,	Fairport, Russell.
Martha Amelia Briggs,	Briggs, Geary.
Prudence Dell Broquet,	Manhattan, Riley.
Alexander Dashway Brown,	Manhattan, Riley.
Ben Remenyi Brown,	Manhattan, Riley.
Elizabeth Barrett Browning,	Manhattan, Riley.
Charles Jay Burson,	Niotaze, Chautauqua.
Howard Frank Butterfield,	Hull, Marshall.
Emma M. Cain,	Clay Center, Clay.
Louis Marion Chase,	Hoyt, Jackson.
Elmer E. Chronister,	Abilene, Dickinson.
Charles Howard Clark,	Kinsley, Edwards.
Robert Curtis Cole,	Dennison, Jackson.
Murray Stanley Cole,	Dennison, Jackson.
Edwin Charles Cook,	Oakley, Logan.
Farley D. Copping,	Delphos, Ottawa.
Mabel Aletta Corbett,	Manhattan, Riley,
Ina Foote Cowles,	Sibley, Douglass.
Lotta Irene Crawford,	Manhattan, Riley.
Fannie Rachel Ellen Dale,	Manhattan, Riley.
Joe Robert Davidson,	Agricola, Coffey.
Laura Davidson,	Agricola, Coffey.
Mary Ann Davies,	Bala, Riley.

Name.	*Post-office and county (or state).*
Herman August Dieball,	Alma, Wabaunsee.
Edgar Willis Doane,	Louisville, Pottowatomie.
Cora Alice Doverspike,	Welcome, Geary.
Noble Dunn,	Oxford, (Cowley.)
Vollie M. Emmert,	Blue Rapids, Marshall.
Frederick William Epps,	Topeka, Shawnee.
Robert Alexander Esdon,	Olsburg, Pottawatomie.
Rainey Faris,	Dennison, Jackson.
Harry Haines Fay,	Wilsey, Morris.
Fred Fockele,	Le Roy, Coffey.
Ray L. Gamble,	Homewood, Franklin.
Louisa Gerteis,	Derby, Sedgwick.
Clark A. Gingery,	Summerfield, Marshall.
Myron Gould,	Fairmount, Leavenworth.
Alanson L. Hallsted,	Havana, Montgomery.
Hakon Hansen,	Guy, Sheridan.
Gertrude Hanson,	Manhattan, Riley.
Maude Hart,	Manhattan, Riley,
William Lee Harvey,	Arkalon, Seward.
Fred Willis Haselwood,	Clifton, (Clay.)
Orr Henderson,	Eureka, Greenwood.
Eugene Cleon Higgins,	Grand Haven, (Osage.)
Christine Delphine Hofer,	Manhattan, Riley.
Henrietta Mattie Hofer,	Manhattan, Riley.
Karl William Hofer,	Manhattan, Riley.
Thaddeus L. Hoffman,	Enterprise, Dickinson.
William Hofman,	Manhattan, (Pottawatomie.)
Hartley Bowen Holroyd,	Manhattan, Riley.
Ada Beatrice Hooker,	Manhattan, Riley.
Nellie Malitta Hubble,	Manhattan, Riley.
Fred M. Johnson,	Marysville, Marshall.
Georgeanna Jolly,	Manhattan, Riley.
Jesse W. Joss,	Fairview, Brown.
Edgar Willes Kimball,	Manhattan, Riley.
Samuel Robert Kimble,	Manhattan, Riley.
Helen Knostman,	Manhattan, Riley.
George Otto Kramer,	Wabaunsee, Wabaunsee.
Daniel Ladd,	Manhattan, Riley.
Jessie Mabel Lantz,	Waldo, Russell.
Arthur Moore Lee,	Manhattan, Riley.
Harry Vincent Lowry,	Harris, Anderson.
Otto Meade McAninch,	Manhattan, Riley.
Carrie Melissa McCord,	Manhattan, Riley.
Eva Lenora McCoy,	Caney, Montgomery.
Bertha McCreary,	Manhattan, Riley,
Edward James McKee,	Marysville, Marshall.
John A. McKenzie,	Solomon, Saline.
Amelia Augusta Maelzer,	Neuchatel, Nemaha.
Walter Eldridge Mathewson,	Topeka, Shawnee.
Emma Maude Miller,	Milford, Geary.
John Rutherford Minis,	Manhattan, Riley.

Name.	*Post-office and county (or state).*
Miriam Delia Monroe,	Whiting, Jackson.
Kate Bell Morgan,	Manhattan, Riley.
Benjamin Franklin Mudge,	Manhattan, Riley.
Ruth A. Mudge,	Manhattan, Riley.
Charles Elmer Munkres,	Kelso, Morris.
Jessie May Mustard,	Manchester, Dickinson.
Dorothy Myers,	Manhattan, Riley.
Fred Myers,	Marquette, McPherson.
James Lawrence Nelson,	St. Louis, *Missouri.*
Fred Cranston Nicholson,	Manhattan, Riley.
Clara Nitcher,	Ottawa, Franklin.
Martha Nitcher,	Ottawa, Franklin.
Ida Lewis Norton,	Manhattan, Riley.
Margaret Alice Norton,	Manhattan, Riley.
John H. Oesterhaus,	Junction City, Geary.
Carrie Bell Oneel,	Manhattan, Riley,
Lela Elizabeth Parks,	Manhattan, Riley.
Pearl Mabel Phillips,	Manhattan, Riley.
Helena Maude Pincomb,	Hector, Johnson.
Bryant Poole,	Briggs, Geary.
Abbie Putnam,	Manhattan, Riley.
William Stephen Read,	Sutphen, Dickinson.
Harry Paul Richards,	Manhattan, Riley.
Leroy Rigg,	Marvin, Phillips.
Herman Hale Riley,	Waverly, Coffey.
Florence Rebecca Ritchie,	Manhattan, Riley.
Kate L. Robertson,	Manhattan, Riley.
Elsie May Robinson,	Manhattan, Riley.
Alice May Ross,	Manhattan, Riley.
Maude Ross,	Manhattan, Riley.
Alvira Salkeld,	Manhattan, Riley.
Maude Sauble,	Florence, Marion.
Charles A. Scott,	Westmoreland, Pottawatomie.
Edward Alfred Shirtcliff,	Otego, Jewell.
Ethel Lillian Shofe,	Manhattan, Riley.
Florence Shuyler,	Nickerson, Reno.
William Henry Soupene,	Manhattan, (Pottawatomie.)
Charles Orval Sparks,	Ludell, Rawlins.
Walter Hayward Spencer,	Yates Center, Woodson.
Amelia Spohr,	Manhattan, Riley.
John Leonard Stein,	Gypsum, Saline.
Adelaide Strite,	Garrison, Pottawatomie.
Blanche Elsie Stump,	Manhattan, Riley.
Anna Odette Summers,	Waterville, Marshall.
Lucy A. Sweet,	Stockdale, Riley.
Millie Minerva Tague,	Manhattan, Riley.
Stella Mae Tharp,	Winfield, Cowley.
Myrtie Lucy Toothaker,	Wheaton, Pottawatomie.
Charles Daniel Townley,	Milan, *Missouri.*
Ralph F. Triplett,	Clay Center, Clay.
Helen Castle True,	Vera, Wabaunsee.

Name.	*Post-office and county (or state).*
Clayborne C. Turner,	Oakley, Logan.
Pearl Julia Turner,	Rock Creek, Jefferson.
Florence Helen Vail,	Manhattan, Riley.
Raymond S. Vail,	Manhattan, Riley.
Harriet Emily Van Everen,	Manhattan, Riley.
Phillip Farrand Van Everen,	Manhattan, Riley.
Victor Emanuel Vilander,	Cleburne, Riley.
Blaine Vosburg,	Thayer, Neosho.
Mary Caroline Wagner,	Enterprise, Dickinson.
Orin Russell Wakefield,	Wilsey, Morris.
Bolivar Kernest Walters,	Manhattan, Riley.
Carrie Emma Walters,	Milford, Geary.
Emma Ward,	Quenemo, Franklin.
Harvey Augustus Washburn,	Riley, Riley.
Barbara Welter,	Myers Valley, Pottawatomie.
Herman Henry Wetzig,	Winkler, Riley.
David Dwight White,	Newton, Harvey.
Eleanor Mary White,	Newton, Harvey.
Paul Anthony Wiedeman,	Alma, Wabaunsee.
Cyrus Edward Wilkins,	Vilas, Wilson.
George Edward Williams,	Hoganville, Graham.
Kathrina Winter,	Manhattan, Riley.
Aix Lacy Worswick,	Oskaloosa, Jefferson.
Lucy Joan Wyatt,	Westmoreland, Pottawatomie.
Mary Estelle Yenawine,	Manhattan, Riley.
Henry Theodore York,	Rossville, Shawnee.
James Lucien Young,	Stanley, Johnson.

FIRST YEAR.

Harvey Adams,	Osawkie, Jefferson.
Charlie Henry Aiman,	Newton, Harvey.
Abbie Lorena Akin,	Zeandale, Riley.
Pearl Akin,	Manhattan, Riley.
Mamie Alexander,	Welda, Anderson.
Orlo Wilder Ames,	Riley, Riley.
Carl Anderson,	Manhattan, Riley.
Maude Idella Archer,	Glenloch, Anderson.
Amy Viola Atwell,	Utica, Ness.
Charles M. Baird,	Arkansas City, Cowley.
Charles Olin Baird,	Marquette, McPherson.
William Baird,	Arkansas City, Cowley.
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Daniel E. Baumbaugh,	Moonlight, Dickinson.
Earl Maynard Baxter,	Manhattan, Riley.
Samuel Keith Beach,	Keene, Wabaunsee.
John J. Beck,	Nickerson, Reno.
Adelaide Pearl Bell,	Manhattan, Riley.
Lawrence C. Bell,	Arkansas City, Cowley.
Lydia Margaret Bell,	Manhattan, Riley.
Fred Edward Bender,	Manhattan, Riley.
Maud Inez Benson,	Hull, Marshall.

Name.	*Post-office and county (or state).*
Evelyne Myrtle Berkley,	Manhattan, Riley.
Abram E. Bert,	Moonlight, Dickinson.
Wallace Newton Birch,	Manhattan, Riley.
John W. Blachly,	Leonardville, Riley.
Mary Bolton,	Paxico, Wabaunsee.
Richard Franklin Bourne,	Delphos, Ottawa.
Edwin T. Bower,	Manhattan, Riley.
Darius N. Bowers,	Crescent, Kiowa.
Frank William Boyd,	Kensington, Smith.
Leon Broquet,	Manhattan, Riley.
Thaddie C. Brown,	Guilford, Wilson.
William C. Brown,	Waterville, Marshall.
Paul Bert Bryson,	Abilene, Dickinson.
Eva Lucinda Buffum,	Manhattan, Riley.
Jennie Grace Buffum,	Manhattan, Riley.
Faith Burroughs,	Austin, *Illinois.*
Ezra Garfield Burt,	Eureka, Greenwood.
Bertha Floy Caldwell,	Garnett, Anderson.
Fred Wallace Caldwell,	Garnett, Anderson.
August W. Carlson,	Cleburne, Riley.
August Belmont Carnahan,	Douglass, Butler.
Allie E. Carnahan,	Berryton, Shawnee.
William Elery Catherman,	Tescott, Ottawa.
Floyd Adelbert Champlin,	Phillipsburg, Phillips.
Elijah Ellis Chase,	Merriam, Johnson.
Ezra James Clark,	Manhattan, Riley.
Roy Justus Clark,	Fredonia, Wilson.
George M. Click,	Havana, Montgomery.
Hayes Marion Coe,	Yates Center, Woodson.
Maude Mildred Coe,	Yates Center, Woodson,
Linna Coffman,	Overbrook, Osage.
S. H. Conley,	Rossville, Shawnee.
Vera Ann Copping,	Delphos, Ottawa.
Daisy Edith Crans,	Leonardville, Riley.
Winifred Mae Crawford,	Wetmore, Nemaha.
Frank A. Criss,	Grigsby, Scott.
Albert Russell Crozier,	Burdett, Pawnee.
Claude Carrol Cunningham,	Manhattan, Riley.
Bertha May Dana,	Manhattan, Riley.
Anna Elizabeth Daniel,	Overbrook, Osage.
Frank Daniel,	Overbrook, Osage.
Elliott Perrie Daniels,	Birmingham, Jackson.
William Doz. Davis,	Sharp's Creek, McPherson.
Violet Day,	Manhattan, Riley.
Tobe Delahunt,	Olathe, Johnson.
Daniel Curtis Deming,	Larkin, Jackson.
Earl Scott Dewey,	Manhattan, Riley.
Roy Nathan Dorman,	Wabaunsee, Wabaunsee.
Myrtle Dougherty,	Manhattan, Riley.
Isaac Newton Downs,	Eureka, Greenwood.
Orrin Pomeroy Drake,	Beattie, Marshall.

Name.	*Post-office and county (or state).*
Oliver J. Drown,	Manhattan, Riley.
Walter Dimmick Duffy,	Manhattan, Riley.
Anna Dunlap,	Walsburg, Riley.
Edwin Irvin Durant,	Riley, Riley.
Charles Ross Edwards,	Phillipsburg, Phillips.
Guy Henry Edwards,	Phillipsburg, Phillips.
Leonora Darlin Eggen,	Lawrence, Marion.
Rush Elmore,	Tecumseh, Shawnee.
Laura Engel,	Manhattan, Riley.
Lizzie Engel,	Manhattan, Riley.
Albert R. Engle,	Minneapolis, Ottawa.
Joseph Conroe Engle,	Minneapolis, Ottawa.
William Leslie English,	Renfrow, Grant.
Emma Louise Ericson,	Manhattan, Riley.
Bertha Evans,	Manhattan, Riley.
Walter Wendall Evans,	Wilsey, Morris.
William Oscar Ewing,	Parsons, Neosho.
William Thomas Fay,	Jewell City, Jewell.
James William Fields,	McPherson, McPherson.
LeRoy Firebaugh,	Osawatomie, Miami.
Vlasta Maude Fisher,	Manhattan, Riley.
Mabel Rebecca Fix,	Volland, Wabaunsee.
Fred M. Fleming,	Summerfield, Marshall.
Annie E. Foshay,	Overbrook, Osage.
Una Maude Fowler,	Manhattan, Riley.
Andrew Jewell Francis,	Lucas, Russell.
Eugene Dillon Frank,	Bowling, Leavenworth.
R. C. Frederick,	Culver, Ottawa.
David Emerson Gall,	Reserve, Brown.
Eunice May Gates,	Manhattan, Riley.
Mary Mabel Gibbons,	Capioma, Nemaha.
Marie Gibbs,	Industry, Clay.
Frances Gibson,	Geneseo, Rice.
Robert James Gibson,	Raymond, Rice.
Fred Norton Gillis,	Keene, Wabaunsee.
M. H. Ginter,	Winchester, Jefferson.
Courtney P. Grover,	Osawkie, Jefferson.
George Grubb,	Netawaka, Jackson.
Edward August Haffner,	Junction City, Geary.
Lydia F. Haffner,	Junction City, Geary.
Edna Haines,	Manhatten, Riley,
Thomas L. Hall,	Kansas City, *Missouri.*
John D. Hansen,	Willis, Brown.
Esther V. Hanson,	Marquette, McPherson.
Arthur Harper,	Melvern, Osage.
Lola May Harris,	Harveyville, Wabaunsee.
Cora Belle Hart,	Partridge, Reno.
R. Charles Hart,	Randall, Jewell.
Leslie Arthur Hartford,	Buhler, Reno.
John Haulenbeck,	Manhattan, Riley.
Jessie O. Hawkins,	Fort Scott, Bourbon.

Name.	*Post-office and county (or state).*
Elvira Hawkinson,	Marquette, McPherson.
Benjamin F. Haynes,	Marvin, Phillips.
John James Healey,	Wallace, Wallace.
William B. Heckman,	Pfafftown, *North Carolina.*
Marion Martha Hepworth,	Burlingame, Osage.
Joseph Wiley Higginbotham,	Erwin, *Oklahoma.*
Philip Kearney Hight,	Arkansas City, Cowley.
Frank Ferris Hillyer,	Wilsey, Morris.
Allen L. Holcombe,	Cheyenne, *Wyoming.*
Albert Houck,	Admire, Lyon.
John Knowlton Hougham,	Manhattan, Riley.
Sarah C. Hougham,	Manhattan, Riley.
Ernest Alfred Houghton,	Junction City, Geary.
Newell Howard,	Belvidere, Kiowa.
Minerva Ann Howell,	Manhattan, Riley.
John Sherman Howey,	Topeka, Shawnee.
Charles Hubble,	Manhattan, Riley.
Flora Alice Hudspeth,	Manhattan, Riley.
Fred Ed Jacobson,	Norway, Republic.
Anna Johnson,	Solomon Rapids, Mitchell.
Ida Matilda Johnson,	Melvern, Osage.
Roscoe Ray Keeler,	Centropolis, Franklin.
Leeta Birdilla Keene,	Clay Center, Clay.
De Kennard,	Smith Center, Smith.
Daniel Lyon Kent,	Florence, Marion.
Agnes Alvina Knapp,	Vernon, Woodson.
Abraham Lincoln Leonard,	Ellis, Ellis.
John Wesley Lewis,	Manhattan, Riley.
Ralph Joseph Linscott,	Holton, Jackson.
Mabel E. Lock,	Riley, Riley.
George Logan,	Manhattan, Riley.
William L. Lyman,	Manhattan, Riley.
Mary McBoyle,	Bonaccord, Dickinson.
Rachel N. McCoy,	Manhattan, (Pottawatomie.)
Rosa Margaret McCoy,	Manhattan, (Pottawatomie.)
Edwin William McCrone,	Haddam, Washington.
Sara Grace McCrone,	Haddam, Washington.
Thomas E. McCurry,	Milo, Lincoln.
Carl W. McKeen,	Russell, Russell.
Ralph McNicol,	Lost Springs, Marion.
Edward Marksheffel,	Manhattan, Riley.
Marshall M. Matts,	Homewood, Franklin.
Alvin Otto Myer,	Menager, Wyandotte.
Clara Lillian Mills,	Riley, Riley.
Roland Calvin Mitchell,	Florence, Marion.
William Sylvester Mize,	Olathe, Johnson.
Oliver Bert Moore,	Eureka, Greenwood.
Marshall E. Morlan,	Welcome, Geary.
Lewis Claude Morton,	Osage City, Osage.
Roger Bonner Mullen,	St. Joseph, *Missouri.*
Belle Torrance Munger,	Eureka, Greenwood.

Name.	*Post-office and county (or state).*
Mabel Regina Nelson,	Wilber, *Oklahoma.*
Nellie Therese Nilson,	Manhattan, Riley.
Fred Oberhelman,	Bodaville, Riley.
Anna Luella O'Daniel,	Manhattan, Riley.
Mary Lorena O'Daniel,	Westmoreland, Pottawatomie.
Claude Eugene Orendorf,	Ringwood, *Oklahoma.*
Walter E. Pangburn,	Waldo, Russell.
Arda Parker,	Wardin, *Oklahoma.*
August Peak,	Manhattan, Riley.
Herbert H. Perry,	Girard, Crawford.
Ira Lovell Perry,	Wabaunsee, Wabaunsee.
Jennie Grace Phillips,	Kackley, Republic.
Myrtle Phillips,	Kackley, Republic.
Grover Poole,	Briggs, Geary.
Burr Newton Porter,	Phillipsburg, Phillips.
John R. Powers,	Los Angeles, *California.*
Murray Edward Price,	Holling, Douglas.
George Henry Pulk,	Lucas, Russell.
George Fred Punteney,	Frankfort, Marshall.
Nellie Punteney,	Frankfort, Marshall.
Willis Howard Purdy,	Fairview, Brown.
Frank White Purcell,	Manhattan, Riley.
William Arthur Randle,	Bala, Riley.
Arthur James Rathbone,	Manhattan, Riley.
John A Reh,	Homewood, Franklin.
Arthur J. Rhodes,	Manhattan, Riley.
Jesse Clyde Rickman,	Manhattan, Riley.
Ernest Chester Ricord,	Esdon, Jewell.
Frankie Alice Riddell,	Conway, McPherson.
Wayne Riddle,	Marion, Marion.
Owen Haworth Roberts,	Maryville, *Missouri.*
Earl Nathaniel Rodell,	Marquette, McPherson.
Eugene V. Roe,	Silver Lake, Shawnee.
John Francis Ross,	Webber, Jewell.
Ollie Ingeborg Ross,	Webber, Jewell.
Pontus Henry Ross,	Webber, Jewell.
Alvirtis Cantford Salkeld,	Manhattan, Riley.
Zeta Salkeld,	Manhattan, Riley.
Charles Franklin Schafer,	Jewell City, Jewell.
Fred Lewis Schneider,	Purcell, Doniphan.
John Marcus Scott,	Westmoreland, Pottawatomie.
Edmond Raymond Secrest,	Randolph, Riley.
Frank J. Sexton,	Longton, Elk.
Arthur C. Shannon,	Vernon, Woodson.
Thomas Wilson Shannon,	Vernon, Woodson.
Orville Nelson Shaw,	Harveyville, Wabaunsee.
Alfred J. Shearer,	Frankfort, Marshall.
Glen Reid Shepherd,	Manhattan, Riley.
Letta Celestia Sherwood,	Manhattan, Riley.
Lucia Sherwood,	Manhattan, Riley.
Robert Benjamin Sherwood,	Manhattan, Riley.

Name.	*Post-office and county (or state).*
Harry Allen Shuyler,	Nickerson, Reno.
Garfield William Skow,	Leonardville, Riley.
Bruce Sledd,	Raymond, Rice.
Charles Franklin Smith,	Keighley, Butler.
Frank H. P. Smith,	Manhattan, Riley.
Fred G. Smith,	Manhattan, Riley.
Leroy Smith,	Delphos, Ottawa.
Mary Helen Smith,	Manhattan, Riley.
William H. Smith,	Soldier, Jackson.
Hollis Snow,	Council Grove, Morris.
Dean Snyder,	Oskaloosa, Jefferson.
John Edwin Snyder,	Newkirk, *Oklahoma.*
Harrold Addison Spilman,	Manhattan, Riley.
Francis Ulysses Stewart,	Leonardville, Riley.
Lena Ethlyn Stewart,	Leonardville, Riley.
Noah John Stewart,	Arkansas City, Cowley.
Scott Winfield Stine,	Waverly, Coffey.
Anna Virginia Stingley,	Manhattan, Riley.
Ora Day Strong,	McFarland, Wabaunsee.
William Henry Sullivan,	Frankfort, Marshall.
Charles Taber,	Burlingame, Osage.
Raymond Kelley Taber,	Burlingame, Osage.
Lena Tatman,	Holton, Jackson.
John O. Thomas,	Bala, Riley.
Jesse K. Tilford,	Waverly, Coffey.
Mary Etta Towers,	Manhattan, Riley.
Hezekiah Tracy,	New Lancaster, Miami.
Frieda Trunk,	Lyons, Rice.
Alonzo F. Turner,	Oakley, Logan.
Iden Gail Tulloss,	Rantoul, Franklin.
Charlie Van Dalsem,	Fairview, Brown.
Glen Van Dalsem,	Fairview, Brown.
Lester Henry Van Liew,	Manhattan, Riley.
Harry Nelson Vinall,	Oakley, Logan.
Alberta Lorena Voiles,	Manhattan, Riley.
Clytus Curtis Voiles,	Manhattan, Riley.
Roy Bingham Vrooman,	Parsons, Labette.
James Fredric Wadick,	Frankfort, Marshall.
Marcellus Idell Wagner,	Topeka, Shawnee.
Henry A. Walker,	Groveland, McPherson.
Homer Moss Walker,	Groveland, McPherson.
Karl O. Walters,	Manhattan, Riley.
Ina Dale Ware,	Manhattan, Riley.
Laura Bell Ware,	Manhattan, Riley.
Louella Washburn,	Riley, Riley.
Laura Mabel Waters,	Berryton, Shawnee.
Grace Victoria Watson,	Marysville, Marshall.
Frank Vance Weathers,	Howard, Elk.
Margaret Welter,	Myers Valley, Pottawatomie.
Albert A. Werner,	Alden, Rice.
Pauline Emily Wetzig,	Winkler, Riley.

Name.	*Post-office and county (or state).*
Carrie Jane White,	Newton, Harvey.
Leon Vincent White,	Manhattan, Riley.
Perley G. White,	Bennington, Ottawa.
William Walker White,	Newton, Harvey.
George Everett Whitney,	Manhattan, Riley.
Carl Herbert Theodore Widegren,	Morganville, Clay.
Gustav Wiebe,	Halstead, Harvey.
Camma Estelle Wilkins,	Vilas, Wilson.
Albert Royal Williams,	Hull, Marshall.
Charles Luvern Williams,	Ellis, Ellis.
Harry C. Williams,	Edgerton, Johnson.
Myron D. Williams,	Manhattan, Riley.
Thomas Williams,	Hull, Marshall.
Frank Clarence Wilson,	Galva, McPherson.
Homer Wilson,	Eudora, Johnson.
Henry Bernard Winter,	Manhattan, Riley.
Lloyd Elgin Wise,	Reserve, Brown.
Otto Witte,	Kansas City, *Missouri.*
John Dutton Wood,	Webber, Jewell.
Margaret Elizabeth Woodford,	Maple Hill, Wabaunsee.
N. S. Woolverton,	Acme, Dickinson.
Alice M. Worley,	Natoma, Osborne.
Alta L. Worley,	Natoma, Osborne.
Walter Scott Wright,	Marvin, Phillips.
Ellen Wyatt,	Westmoreland, Pottawatomie.
John Wyse,	Yates Center, Woodson.
George Lester Yeakley,	Great Bend, Barton.
Guy D. Yoakum,	Basehor, Leavenworth.
Joe Ell Young,	Stanley, Johnson.
Bert Zirkle,	Bushton, Rice.
Ed. H. Zirkle,	Richland, Shawnee.

PREPARATORY.

Anton Anderson,	Palmer, Washington.
Lillie Margrete Anderson,	Westmoreland, Pottawatomie.
Wallace Anderson,	Jamestown, Jewell.
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Willie J. Baehl,	Hoge Station, Leavenworth.
Harvey Wiltson Baker,	Marvin, Phillips.
Charles Albert Barr,	Myers Valley, Pottawatomie.
Cora Mae Beachum.	Manhattan, Riley.
Gladys Birdsall,	Iola, Allen.
Smile Blackman,	McPherson, McPherson.
Dorcas Blanchard,	Garden City, Finney.
Henry Elden Boardman,	Centralia, Nemaha.
Frank Bertun Bobbitt,	Manhattan, Riley.
J. M. Brenizer,	Abilene, Dickinson.
August Leonard Carlson,	Morganville, Clay.
Ivy May Chandler,	Manhattan, Riley.
Clifford Alon Chapman,	Cawker City, Mitchell.

Name.	*Post-office and county (or state).*
Peter Christianson,	Everest, Brown.
Alta Beatrice Church,	Westmoreland, Pottawatomie.
Edwin Cook,	Effingham, Atchison.
Perry Alfred Cooley,	Dennison, Jackson.
Roy F. Cox,	Manhattan, Riley.
James I. Cunningham,	Beattie, Marshall.
William Dempsey,	Doniphan, Doniphan.
Rosella Xavier Dixon,	Junction City, Geary.
Joseph C. Doege,	Tonganoxie, Leavenworth.
Susie Ellen Doverspike,	Welcome, Geary.
John P. Fadely,	Hiawatha, Brown.
Patrick John Farrell,	Louisville, Pottawatomie.
Thomas Leo Farrell,	Louisville, Pottawatomie.
Bertram J. Finch,	Waverly, Coffey.
Arthur Thomas Finley,	Parallel, Riley.
Emma Fix,	Volland, Wabaunsee.
John W. Garten,	Bennington, Ottawa.
Emma Gates,	Manhattan, Riley.
Guy Clemance Geiger,	Everest, Brown.
Byron Ash Ginter,	Winchester, Jefferson.
Jessie Mae Gist,	Capioma, Nemaha.
Rainey R. Glenn,	Block, Miami.
Cora Goodwin,	Manhattan, Riley.
Nathaniel L. Graves,	LaBelle, *Missouri.*
Emma Victoria Grecian,	Blosser, *Missouri.*
Martha Ann Jane Haden,	Wakefield, Clay.
May E. Hall,	Manhattan, Riley.
William H. Hall,	Hoyt, Jackson.
Mary Haluba,	———
Watson Handley,	Monument, Logan.
Thomas Christian Hansen,	Burns, Marion.
John Elga Harding,	Manhattan, Riley.
Robert Elmer Hardy,	Manhattan, Riley.
George Haulenbeck,	Manhattan, Riley.
Mary Florence Hawkins,	Fort Scott, Bourbon.
E. C. Healey,	Wyoming, Marshall.
Daniel Holke,	Napoleon, *Missouri.*
Ralph K. Holman,	Leavenworth, Leavenworth.
William Hart Hower,	Silver Grove, Lincoln.
Arthur Johnson,	Leavenworth, Leavenworth.
Axel Ferdinand Johnson,	Morganville, Clay.
William Johnson,	Columbus, Cherokee.
James A. Kaff,	Overbrook, Osage.
Ithamar Knapp,	Vernon, Woodson.
Ed. Logan,	Manhattan, Riley.
Joseph Loveland,	Cleveland, *Missouri.*
M. F. Lowry,	Abilene, Dickinson.
Dennis McBride,	Bennington, Marshall.
George D. McClintock,	Topeka, Shawnee.
George L. McCord,	Manhattan, Riley.
Ira John McCoy,	Sabetha, Brown.

Name.	*Post-office and county (or state).*
Everett N. McLeod,	Marysville, Marshall.
Edwin B. McProud,	Louisville, Pottawatomie.
Robert McQuiddy,	Newton, Harvey.
Ben W. McVay,	Wreford, Geary.
Edwin B. Maelzer,	Neuchatel, Nemaha.
Mikel Magnet,	Blaine, Pottawatomie.
Jakie Margreiter,	Glen Elder, Jewell.
Mary Josephine Monahan,	Manhattan, Riley.
George William Nasou,	Rossville, Shawnee.
Martin A. Nelson,	Lovell, Jewell.
George William Nichols,	McPherson, McPherson.
Jesse David Nitcher,	Ottawa, Franklin.
Fred O'Daniel,	Westmoreland, Pottawatomie.
Leonard Garfield Page,	Mayetta, Jackson.
Jesse L. Peters,	Alva, *Oklahoma.*
Emma Portenier,	Phillipsburg, Phillips.
May Porter,	Alma, *Nebraska.*
Milton Pritner,	Keats, Riley.
William Putnam,	Manhattan, Riley.
John W. Reinecke,	Heizer, Barton.
Cecil Irving Richmond,	Wichita, Sedgwick.
Benjamin Fred Richter,	Oskaloosa, Jefferson.
Adelbert Roberts,	Fostoria, Pottawatomie.
Ranier Henry Sanneman,	Clay Center, Clay.
Joseph Jerred Sexton,	Longton, Elk.
Enos N. Sheets,	Moonlight, Dickinson.
Byron Slade,	Stafford, Stafford.
Clyde Smith,	New Lancaster, Miami.
Thomas Ruthiford Talbot,	Marysville, Marshall.
Oscar Nelse Thorson,	Willis, Brown.
Carl Sanford Towner,	Enid, *Oklahoma.*
George I. Tucker,	Minneapolis, Ottawa.
Anthony George Vaught,	Manhattan, Riley.
Ralph Kirkland Ware,	Manhattan, Riley.
Eugene Homer White,	Delphos, Ottawa.
James H. Wilder,	Randall, Jewell.
Jenevi M. Wilkinson,	Topeka, Shawnee.
Andy Jackson Williams,	Corning, Nemaha.
Louis J. Williams,	Sharon Springs, Wallace.
William Totchie Wright,	McPherson, McPherson.
Barnhard Youngkamp,	Manhattan, (Pottawatomie.)

SPECIAL STUDENTS.

Minnie Anderson,	Junction City, Geary.
Daniel A. Beatty,	Talmo, Republic.
Marie Blachly,	Leonardville, Riley.
Bessie Burnham,	Manhattan, Riley.
Louise Burnham,	Manhattan, Riley.
Charles K. Corkill,	Manhattan, Riley.
Lois Marie Deming,	Larkin, Jackson.
Eugenia DePriest,	Manhattan, Riley.

Name.	*Post-office and county (or state).*
Orlando Ross Deputy,	Riley, Riley.
Matilda C. Doll,	Larned, Pawnee.
Orpha May Enochs,	Waterville, Marshall.
Hattie Esdon,	Olsburg, Pottawatomie.
Mrs. Edith B. Faville,	Manhattan, Riley.
B. W. Folsom,	McPherson, McPherson.
James Herman Fritts,	Manhattan, Riley.
K. K. Gregory,	Sia, *Asia Minor, Turkey.*
Anna Winter Hall,	Manhattan, Riley.
Mrs. Edna Harper,	Manhattan, Riley.
Enos Harrold,	Manhattan, Riley.
Elvira Hawkinson,	Marquette, McPherson.
Clarence R. Hepler,	Manhattan, Riley.
Marie Inga Hjort,	Council Grove, Morris.
Clara Kessler,	Topeka, Shawnee.
Katrine Krudop,	Manhattan, Riley.
Laura Elva Louber,	Junction City, Geary.
Mary A. Marlatt,	Manhattan, Riley.
Minnie May McCleary,	Beloit, Mitchell.
Bertha Miller,	Abilene, Dickinson.
Frank A. Nelson,	Windom, McPherson.
Emma Jean O'Daniel,	Westmoreland, Pottawatomie.
Mary Lorena O'Daniel,	Westmoreland, Pottawatomie.
Clara Pancake,	Scott City, Scott.
Edmond B. Purcell,	Manhattan, Riley.
Myron Edith Shannon,	Vernon, Woodson.
Olivia Marguerite Staatz,	Enterprise, Dickinson.
Edith Stafford,	Leonardville, Riley.
Henry Carl Sticher,	Yates Center, Woodson.
Mrs. Lizzie Chaney Ward,	Manhattan, Riley.
Carrilu Wilde,	St. Louis, *Missouri.*
Jenevi M. Wilkinson,	Topeka, Shawnee.

DAIRY STUDENTS.

Jacob S. Carl,	Cawker City, Mitchell.
Clifford Alon Chapman,	Cawker City, Mitchell.
J. A. Conover,	Sabetha, Nemaha.
E. Maltby Cooper,	Wabaunsee, Wabaunsee.
Abrem Bentzley Currier,	Garnett, Anderson.
Joe. Robert Davidson,	Agricola, Coffey.
Charles Alpha Gage,	Mont Ida, Anderson.
Harker Hersh,	Abilene, Dickinson.
Henry Alba Martin,	Junction City, (Riley.)
J. Walter Mills,	Ottawa, Franklin.
James Lyman Munger,	Eureka, Greenwood.
George Fred Punteney,	Frankfort, Marshall.
John A. Reh,	Homewood, Franklin.
Allen Rice,	McLouth, Jefferson.
Nelse Rimol,	Norway, Republic.
Alvin B. Sholten,	Beloit, Mitchell.
Alvin Lewis Smith,	Loveland, *Ohio.*

Name.	*Post-office and county (or state).*
G. G. Socolofsky,	Tampa, Marion.
John P. Thille,	Cawker City, Mitchell.
Jesse K. Tilford,	Waverly, Coffey.
Glen H. VanDalsem,	Fairview, Brown.
Ed. H. Webster,	Yates Center, Woodson.
George E. Williams,	Manhattan, Riley.
Oliver Wesley Wilcox,	Corning, Nemaha.
William J. Williams,	Osawkie, Jefferson.
William Zacharias,	Oak Mill, Atchison.

APPRENTICES IN SHOPS.

Harmon S. Armstrong,	Birmingham, Jackson.
Fred Edward Bender,	Manhattan, Riley.
John Harrold Blachly,	Manhattan, Riley.
A. F. Bushnell,	Iowaville, Sedgwick.
E. Maltby Cooper,	Wabaunsee, Wabaunsee.
G. W. Carlson,	———
James I. Cunningham,	Beattie, Marshall.
Tobe Delahunt,	Olathe, Johnson.
J. H. Fields,	McPherson, McPherson.
Lucian C. Freeland,	Almena, Norton.
C. A. Gasser,	Neosho, *Missouri.*
Jack William Gyles,*	Dodge City, Ford.
W. M. Haney,	Milford, Geary.
Samuel McCreedy Hanlon,	Orie, *Oklahoma.*
George R. Johnson,	Axtell, Marshall.
Roscoe Ray Keeler,	Centropolis, Franklin.
Albert W. Krotzer,	Manhattan, Riley.
Charles Curtis Livingston,	Abilene, Dickinson.
Robert McQuiddy,	Newton, Harvey.
Porter Hayse Rader,	Manhattan, Riley.
Claude Leroy Ream,	Wetmore, Nemaha.
George Boyd Rhodes,	Gardner, Johnson.
Theodore Sauble,	Florence, Marion.
H. E. Salvidge,	———
Howard Charles Shafer,	Goddard, Sedgwick.
Thomas W. Shearer,	———
S. O. Sheldon,	Topeka, Shawnee.
Clytus Curtis Voiles,	Manhattan, Riley.
Karl O. Walters,	Manhattan, Riley.
Daniel Webster,	———
Charles Luvern Williams,	Ellis, Ellis.
F. C. Wilson,	Galva, McPherson.

APPRENTICES IN PRINTING.

Arthur Thomas Finley,	Parallel, Riley.
Marie Gibbs,	Industry, Clay.
Hartley Bowen Holroyd,	Manhattan, Riley.

*Deceased.

SUMMARY.

CLASSES.	*Gentlemen.*	*Ladies.*	*Total.*	*Average age.*
Postgraduate	24	16	40	26.15
Fourth year	43	22	65	21.9
Third year	55	37	92	20.98
Second year	95	82	177	20.33
First year	215	91	306	19.33
Preparatory	90	20	110	20.27
Special	11	29	40	.....
Dairy	26	.....	26	22.92
Apprentices	34	1	35	.....
Counted twice	19	1	20	.....
Totals	574	297	871	.....

From 80 counties of Kansas, 823.
From 14 other states, 40.
From 3 foreign countries, 3.
Address not known, 5.

RECORD OF ATTENDANCE, 1879-1899.

COLLEGE YEAR.	*Dairy*	*Apprentice*	*Special*	*Preparatory**	*First year*	*Second year*	*Third year*	*Fourth year*	*Postgraduate*	*Counted twice*	*Total*	*Graduated*
1878–79	...	...	1	....	89	89	16	12	.....	....	207	9
1879–80 †	...	...	1	....	166	61	35	11	2	....	276	7
1880–81 ‡	...	...	6	....	178	48	24	9	2	....	267	8
1881–82	...	...	5	....	227	50	19	11	.....	....	312	9
1882–83	...	...	4	....	241	60	30	12	.....	....	347	12
1883–84	...	...	2	....	255	92	26	18	2	....	395	17
1884–85	...	...	2	....	271	71	36	16	5	....	402	14
1885–86	...	...	1	....	273	91	35	24	4	....	428	21
1886–87	...	...	....	....	303	100	44	24	10	....	481	21
1887–88	...	...	....	....	305	92	46	27	2	....	472	22
1888–89 †	...	...	....	....	266	103	41	28	7	....	445	25
1889–90	...	...	1	....	307	105	63	28	10	....	514	27
1890–91 †	...	...	....	....	343	135	50	53	12	....	593	52
1891–92	...	...	....	....	336	139	62	37	10	....	584	35
1892–93	...	...	....	....	339	110	66	43	29	....	587	39
1893–94	...	...	....	....	275	141	72	42	25	....	555	40
1894–95	...	...	5	....	276	108	89	64	30	....	572	57
1895–96	...	...	3	....	353	121	67	71	32	....	647	66
1896–97 *	...	...	6	67	321	163	69	62	46	....	734	55
1897–98	6	9	15	77	316	174	77	82	57	10	803	69
1898–99	26	35	40	110	306	177	92	65	40	20	871	53

* Previous to 1896–'97 the preparatory students were not listed separately from the first years.

† Requirements for admittance raised.

‡ Course strengthened.

Graduates.

This list is made from the best data obtainable. A favor will be conferred by notifying the College Secretary of any errors or changes.

1867.

Henry L. Denison, A. M., 1257 Clarkson street, Denver, Colo. United States court reporter.
Belle M. (Haines) Pond, A. M., 1821 Clay street, Topeka, Kan. Housewife.
Emma L. (Haines) Bowen, A. M., Manhattan, Kan. Housewife.
John J. Points, A. M., Omaha, Neb. Lawyer.
Martha A. (White) Abbott, A. M., 283 South Oakley avenue, Chicago, Ill. Housewife.

1871.

Emily M. (Campbell) Robinson, A. B. Died in 1877.
Ella F. (Denison) Whedon, A. B., Lincoln, Neb. Housewife.
Luella M. Houston, A. B., Galveston, Tex. Milliner and dressmaker.
Charles O. Whedon, B. S., 1345 D street, Lincoln, Neb. Lawyer.
Kate E. (White) Turley, A. B., Chicago, Ill. Housewife.

1872.

Theophania M. (Haines) Huntington, A. B. Died in 1880.
Albert Todd, A. M., St. Augustine, Fla. Lieutenant First U. S. artillery.
S. Wendell Williston, A. M., M. D., Lawrence, Kan. Dean of medical school, State University.

1873.

Eliza Z. (Davis) Stringfield, A. B., 1111 Santee street, Los Angeles, Cal. Housewife.
Sam Kimble, A. B., Manhattan, Kan. Lawyer.

1874.

Harry A. Brous, A. M., M. D., southwest cor. Ninth and Pine streets, Philadelphia, Pa. Physician.
Edgar F. Clark, A. B., New Whatcom, Wash. Lawyer.
John E. Davis, B. S., D. D. S., 737 Oak street, Columbus, Ohio. Dentist.
William D. Gilbert, A. B., Atchison, Kan. Lawyer.
A. Judson White, A. B., Manhattan, Kan. Minister.

1875.

Reuben E. Lofinck, B. S., Manhattan, Kan. Merchant.
Alice E. (Stewart) Points, A. M., 128 Bright street, Jersey City, N. J. Teacher.

1876.

George A. Gale, A. B., Mangona, Fla. Merchant and postmaster.
Ella M. (Gale) Kedzie, A. B., Lansing, Mich. Teacher of art.
Nellie (Sawyer) Kedzie, M. S., Peoria, Ill. Professor of domestic economy, Bradley Polytechnic Institute.
Carrie M. Kimball, A. B., Garden Grove, Cal. Art instructor.
Minerva E. (Whitman) Heiser, A. B., Lyndon, Kan. Housewife.

1877.

Ella S. Child, B. S., Manhattan, Kan. Dressmaker.
George H. Failyer, M. S., Manhattan, Kan. Book dealer.
John S. Griffing, M. S., 401 Lake street, Topeka, Kan. Merchant.
Walter C. Howard, B. S., Penryn, Placer county, Cal. Minister.
Frederick O. Hoyt, B. S. Died in 1884.
Louis E. Humphrey, B. S., Chapman, Kan. Druggist.
James F. La Tourette, B. S., Idaho Springs, Colo. Miner.
Marion F. Leasnre, B. S., LL. B., La Cygne, Kan. Lawyer.
William Ulrich, M. S., Manhattan, Kan. Contractor and builder.

1878.

Albert N. Godfrey, M. S., Port Townsend, Wash. Farmer and fruit-grower.
Charles S. McConnell, B. S.
Geo. S. Platt, B. S. Died in 1878.
Amos E. Wilson, B. S., Leavenworth, Kan. Banker.

1879.

Arthur T. Blain, B. S., Lacanada, Cal. Nurseryman.
Etta (Campbell) Blain, B. S., Lacanada, Cal. Housewife.
Wilmer K. Eckman, B. S., Longview, Tex. Bank cashier.
Corvin J. Reed, B. S., St. Clere, Kan. Farmer.
Harry C. Rushmore, B. S., 735 Lincoln street, Topeka, Kan. Merchant.
Wm. H. Sikes, B. S., Leonardville, Kan. Merchant and grain dealer.
Lewis A. Salter, B. S., Alva, Okla. Lawyer.
Ella (Vincent) McCormick, B. S., Clay Center, Kan. Bookkeeper.
Clarence E. Wood, B. S., A. B., Erwin, Okla. Farmer.

1880.

Augustine Beacham, B. S.
Lizzie R. (Cox) Kregar, B. S., Milford, Kan. Housewife.
Emma (Hoyt) Turner, B. S., Peru, Ill. Housewife.
Emma (Knostman) Huse, B. S., Arkansas City, Kan. Housewife.
Grace (Parker) Perry, B. S., Pocatello, Idaho. Housewife.
Noble A. Richardson, B. S., San Bernardino, Cal. Superintendent of city schools.
Maria E. (Sickels) Davis, B. S., Chicago, Ill. Housewife.

1881.

Flora (Donaldson) Reed, B. S., St. Clere, Kan. Housewife.
Ulysses G. Houston, B. S., Kingfisher, Okla. Lecturer.
Fletcher M. Jeffrey, B. S., Cripple Creek, Colo. Lawyer.
William J. Jeffrey, B. S., Boston, Mass. Law student, Boston University.
Darwin S. Leach, B. S., ——, Africa.
William J. Lightfoot, B. S., 307 May avenue, Cripple Creek, Colo. Deputy United States mineral surveyor.
Dalinda (Mason) Cotey, B. S., Logan, Utah. Professor of domestic arts, Utah Agricultural College.
Wirt S. Myers, B. S., Tampa, Fla. Furniture manufacturer.

1882.

J. Chester Allen, B. S. Died in 1885.
Ida (Cranford) Sloan, B. S., Stillwater, Cal. Housewife.
Edward V. Cripps, B. S., ——.
Warren Knaus, M. S., McPherson, Kan. Editor.
Mattie E. (Mails) Coons, B. S., Manhattan, Kan. Housewife.
Allie S. (Peckham) Cordry, B. S., Minneapolis, Kan. Housewife and art teacher.
Belle (Selby) Curtice, B. S., 604 American Bank building, Kansas City, Mo. Housewife.
Burton L. Short, B. S., Kansas City, Kan. Assistant postmaster.
John A. Sloan, B. S., Stillwater, Cal. Farmer and nurseryman.

1883.

James W. Berry, B. S., Jewell City, Kan. Lumberman.
Mary C. Bower, B. S., Manhattan, Kan. Clerk.
Lewis W. Call, B. S., LL. M., Washington, D. C. Chief clerk, judge-advocate general's office U. S. war department.
Emma E. Glossop, B. S., Lexington, Ill. Teacher city schools.
William J. Griffing, B. S., Manhattan, Kan. Farmer and fruit-grower.
Phœbe E. Haines, M. S., Manhattan, Kan. At home.
Hortense L. (Houston) Martin, B. S., Miami, I. T. Housewife.
Jacob Lund, M. S., Manhattan, Kan. Engineer, Kansas State Agricultural College.
Katie I. (Meguire) Sheldon, B. S., Riverside, Cal. Housewife.
J. Dana Needham, B. S., Lane, Kan. Merchant.
Milan T. Ward, B. S., M. D., Orion, Ill. Physician.
Julius T. Willard, M. S., Manhattan, Kan. Professor of applied chemistry, Kansas State Agricultural College.

1884.

Emmett S. Andress, B. S., Lakin, Kan. Farmer.
Florence J. Brous, B. S., 704 St. Paul street, Kansas City, Kan. Teacher.
Bartholomew Buchli, M. S., D. V. S., Alma, Kan. Teacher and farmer.
John H. Calvin, B. S., LL. B. Died in 1898.
Wm. A. Corey, B. S., Salt Lake City, Utah. Teacher and editor.
Henry M. Cottrell, M. S., Manhattan, Kan. Professor of agriculture, Kansas State Agricultural College.
Carrie F. (Donaldson) Brown, B. S., Portland, Oregon. Housewife.
Florence A. Donaldson, B. S. Died in August, 1888.
Frank W. Dunn, B. S., Alman, Colo. Assayer.
I. Day Gardiner, B. S. Died in 1899.
Edwin H. Kern, B. S., Cripple Creek, Colo. Mining engineer.
Marion M. Lewis, B. S. Died in ——.
Charles L. Marlatt, M. S., 1440 Massachusetts avenue, Washington, D. C. First assistant in entomological division, United States department of agriculture.
Lincoln H. Neiswender, B. S., Silver Lake, Kan. Farmer.
Geo. C. Peck, B. S., Junction City, Kan. Miller.
Hattie L. (Peck) Berry, B. S., Jewell City. Kan. Housewife.
John W. Shartel, B. S., Oklahoma City, Okla. Lawyer.

1885.

Thomas Bassler, B. S., Batchelder, Okla. Horticulturist.
Albert Deitz, B. S., 2402 Fairmount avenue, Kansas City, Mo. Merchant.
George E. Hopper, M. S., Arkansas City, Kan. Superintendent of water-works.
Florence F. Hough, B. S., Great Bend, Kan.
Frank A. Hutto, B. S., Stillwater, Okla. Professor of history and economics, Oklahoma Agricultural and Mechanical College.
J. Allen Lewis, M. S., C. E., 288 South Oakley avenue, Chicago, Ill. Civil engineer.
Nellie J. Murphy, B. S., South Denver, Colo. Trained nurse.
Arthur L. Noyes, B. S., Wahaunsee, Kan. Farmer.
Clarence D. Pratt, B. S., Dallas, Tex. General agent paint company.
Rollin R. Rees, B. S., Minneapolis, Kan. Attorney and member of legislature.
Frederick J. Rogers, M. S., Ithaca, N. Y. Instructor in physics, Cornell University.
Dorothy E. C. (Secrest) Hungerford, B. S., Randolph, Kan. Housewife.
Grace Wonsetler, B. S., Chicago, Ill. Medical student.
Effie E. (Woods) Shartel, B. S., Oklahoma City, Okla. Housewife.

1886.

Lillie B. Bridgeman, M. S., San Diego, Cal. Teacher of science.
Louis P. Brous, M. S., 800 Minnesota avenue, Kansas City, Kan. Teacher of sciences in high school.
Paul H. Fairchild, B. S., M. D., 100 William street, New York city. Publisher of medical journals, and president of Pulvola Chemical Company.
Abbott M. Green, B. S., Adin, Cal. Civil engineer and teacher.
James G. Harbord, M. S., Manzanillo. Cuba. Lieutenant Tenth cavalry, U. S. A.
John U. Higinbotham, B. S., National Home Insurance building, 205 La Salle street, Chicago, Ill. Cashier biscuit manufacturing company.
Maria C. (Hopper) Getty, B. S., Downs, Kan. Housewife.
E. Ada (Little) MacEwan, B. S., Logan, Utah. Housewife.
Frank L. Parker, B. S., Hutchinson, Kan. Merchant.
Edward H. Perry, B. S., Perry, Okla. Editor and publisher.
H. Augustus Platt, B. S., Manhattan, Kan. Farmer.
Ada H. (Quinby) Perry, B. S., Perry, Okla. Housewife.
Ida H. (Quinby) Gardiner, Wakefield, Kan. Housewife.
Minnie Reed, M. S., 2226 Chapel street, Berkeley, Cal. Postgraduate student, university.
David G. Robertson, B. S., 948 and 950 Marquette building, 204 Dearborn street, Chicago, Ill. Lawyer.
Edward O. Sisson, B. S., Peoria, Ill. President Bradley Polytechnic Institute.
John W. Van Deventer, B. S., Sterling, Colo. Editor and publisher.
George W. Waters, B. S., Dillon, Colo. Ranchman.
William E. Whaley, B. S., 5418 Greenwood avenue, Chicago, Ill. Instructor in history, South Side school.
F. Henrietta (Willard) Calvin, B. S., Topeka, Kan. Housewife.
John L. Wise, B. S., Smithboro, Ill. Merchant.

1887.

Edgar A. Allen, B. S., Albuquerque, N. M. Superintendent of Indian school.
Fred H. Avery, B. S. Died in 1896.
Claude M. Breese, M. S., Manhattan, Kan. County clerk.
John B. Brown, M. S., Lawrence, Kan. Teacher, Haskell Institute.
Walter J. G. Burtis, B. S., Fredonia, Kan. Farmer.
Mark A. Carleton, M. S., Washington, D. C. Assistant in division of vegetable pathology, U. S. department of agriculture.
Nellie E. (Cottrell) Stiles, B. S., Lakeside, Cal. Housewife.
Bert R. Elliott, B. S., Dyea, Alaska. Merchant and freighter.
Frederick B. Elliott, B. S., Manhattan, Kan. Real-estate and insurance agent.
Clara M. Keyes, B. S., Warner, Cal. Teacher.
Fred. G. Kimball, B. S., St. Michaels, Alaska. Railway postal clerk.
Frederick A. Marlatt, B. S., Manhattan, Kan. Proprietor Blue Valley Manufacturing Company.
William J. McLaughlin, B. S., Randolph, Kansas. Editor.
Mary E. Moses, B. S., Manhattan, Kan. At home.
Charles A. Murphy, B. S., Kingman, Kan. Superintendent of schools.
Orlando G. Palmer, B. S., LL. M., Perry, Okla. Superintendent of schools.
Louis B. Parker, B. S. Died in 1889.
James E. Payne, M. S., Cheyenne Wells, Colo. Superintendent Rainbelt Experiment Station.
Seward N. Peck, B. S., Topeka, Kan. Cabinet-maker, railroad shops.
George N. Thompson, B. S., Belmond, Iowa. Mechanic.
Willis M. Wright, B. S., Jennings, La. Farmer.

1888.

Grant Arnold, B. S., Toledo, Wash. Teacher.
Bertha H. Bacheller, M. S., Kansas City, Mo. Teacher of domestic science, manual training school.
Clement G. Clarke, B. S., 219 York street, New Haven, Conn. Instructor, Yale University.
Alexander C. Cobb, B. S., Wagoner, I. T. Farmer and carpenter.
Mattie (Cobb) Clarke, B. S., New Haven, Conn. Housewife.
Minnie H. Cowell, B. S., Castle View Styning, Sussex, England. Hospital nurse.
Lyman H. Dixon, B. S., Buffalo, N. Y. Architect.
David G. Fairchild, M. S., Washington, D. C. Botanist, experiment station.
Carl E. Friend, B. S., Soldier, Kan. Banker.
John R. Harrison, B. S., Salina, Kan. Inspector of post-offices.
Humphrey W. Jones, B. S., 1251 Lincoln street, Topeka, Kan. Teacher.
Nathan E. Lewis, B. S., 149 East Fifth street, Plainfield, N. Y. Draughtsman.
Abbie L. Marlatt, M. S., 261 Benefit street, Providence, R. I. Teacher of domestic science, manual training school.
William C. Moore, B. S., Junction City, Kan. Editor and publisher.
Ernest F. Nichols, B. S., Hanover, N. H. Professor of physics, Dartmouth College.
Harry E. Robb, B. S., Eureka, Kan. Farmer and county surveyor.
Anna Snyder, B. S., Emporia, Kan. Student, State Normal School.
Edwin H. Snyder, B. S., Denver, Colo. Editor and publisher.
Oliver L. Utter, B. S., 72 Mt. Vernon street, Boston, Mass. Student in Boston University.
Aaron Walters, B. S. Died in 1892.
Lora L. Waters, M. S., Manhattan, Kan. Teacher.
Daniel W. Working, jr., B. S., 808 Equitable building, Denver, Colo. Assistant secretary, Ballarat-Smuggler Mining and Milling Company.

1889.

Emma A. Allen, B. S. Died in 1891.
Joseph W. Bayles, B. S., Manhattan, Kan. Farmer.
Walter R. Browning, B. S., Padonia, Kan. Grain dealer.
David E. Bundy, B. S., Randolph, Kan. Minister.
Samuel S. Cobb, B. S., Wagoner, I. T. Cattle dealer.
Judson H. Criswell, B. S., Manhattan, Kan. Sales clerk.
Mattie I. (Farley) Carr, B. S., Winthrop, Wash. Housewife.
Clarence E. Freeman, M. S., Chicago, Ill. Associate professor electrical engineering and technology, Armour Institute.
Hattie L. (Gale) Sanders, B. S., Mangona, Fla. Housewife.
John S. Hazen, B. S., Springfield, Mo. United States weather bureau observer.
Albert B. Kimball, B. S., Scandia, Kan. Editor and postmaster.
William Knabb, B. S., Hiawatha, Kan. Assistant bank cashier.

Mary C. Lee, B. S., Lawrence, Kan. Student, State University.
Alonzo A. Mills, B. S., Kamas, Utah. Manager of creamery.
Susan W. Nichols, B. S., 637 North Tenth street, St. Josepb, Mo. Music teacher.
Walter H. Olin, M. S., Ottawa, Kan. Superintendent of city schools.
Eli M. Paddleford, B. S., Boston, Mass. Minister.
Maude F. Sayers, B. S., Ottawa, Kan. Bookkeeper.
Florine (Secrest) Linderman, Willow Glen, San Jose, Cal. Housewife.
Stanley Snyder, B. S., Oskaloosa, Kan. Farmer.
Charles W. Thompson, B. S., D. D. S., Holton, Kan. Dentist.
Jane C. Tunnell, B. S., Mt. Carroll, Ill. Teacher.
Ina M. (Turner) Bruce, B. S., St. Louis, Mo. Housewife.
Robert U. Waldraven, B. S., Rosedale, Kan. Minister.
Henry S. Willard, B. S., M. D., Manhattan, Kan. Physician and druggist.

1890.

Samnel I. Borton, B. S., Hilltop, Kan. Teacher.
Frank A. Campbell, B. S., Highlands, Colo. Reporter.
Arthur F. Cranston, B. S., Parsons, Kan. Lawyer.
John Davis, B. S., Alva, Okla. Professor of English and literature, Oklahoma Normal School.
Grant W. Dewey, B. S., Manhattan, Kan. Photographer.
Charles J. Dobbs, B. S., Central National Bank building, Topeka, Kan. Lawyer.
Charles W. Earle, B. S., 917 E street, Denver, Colo. Advertising agent.
Schuyler C. Harner, B. S , Leonardville, Kan. Teacher and farmer.
John W. Ijams, B. S., Orlando, Okla. Teacher.
Bertha S. (Kimhall) Dickens, M. S., Manbattan, Kan. Honsewife.
Harriet E. (Knipe) Curtis, B. S., Manhattan, Kan. Housewife.
Nellie P. (Little) Dobbs, B. S., Topeka, Kan. Housewife.
Ellsworth Thomas Martin, B. S., LL. B., Chicago, Ill. Lawyer.
Silas C. Mason, M. S., Berea, Ky. Professor of horticulture and biology, Berea College.
Wilton L. Morse, B. S., Mancos, Colo. Farmer.
Albert E. Newman, B. S., Watonga, Okla. Connty superintendent and editor.
Julia R. Pearce, B. S., Santa Cruz, Cal. Journalist.
Emil C. Pfuetze, B. S., Randolph, Kan. Lumberman.
William H. Sanders, B. S., Mangona, Fla. Plumber and builder.
Emma Secrest, B. S. Died in 1898.
Marie Barbara Senn, M. S., Fargo, N. D. Instructor in domestic economy, State Agricultnral College.
Ralph Snyder, B. S., Oskaloosa, Kan. Farmer and stockman.
George E. Stoker, B. S., A. B., Topeka, Kan. Lawyer.
Walter T. Swingle, M. S. Traveling in Europe for division of vegetable pathology, U. S. department of agriculture.
Gilbert J. Van Zile, B. S. Died in 1899.
Harry N. Whitford, B. S., 6514 Kimbark avenue, Chicago, Ill. Instructor in Armour Institute.
Thomas E. Wimer, B. S. Died in 1890.

1891.

William Aaron Anderson, Kansas City, Mo. Bookkeeper.
William Sberman Arbuthnot, B. S., D. V. S., Republic, Kan. Veterinary snrgeon and druggist.
Herman William Avery, B. S., Wakefield, Kan. Farmer and merchant.
Jndd Noble Bridgman, M. S., Manila. Twentieth Kansas volunteers.
Robert James Brock, B. S., Manhattan, Kan. Lawyer and county attorney.
Francis Charles Burtis, M. S., Stillwater, Okla. Professor of agriculture, Oklahoma Agricultural and Mechanical College.
Charles Albert Campbell, B. S., 1947 North Seventh street, Philadelphia, Pa. Minister.
Spencer Norman Chaffee, B. S., Manhattan, Kan. Principal preparatory school, Kansas State Agricultural College.
Ephraim Clay Coburn, B. S., 422 N. Fourth street, Kansas City, Kan. Student of medicine.
Gertrude Coburn, B. S., Ames, Iowa. Professor of domestic science, Iowa State College.
Tina Lonise (Coburn) Tomson, B. S., Cedar Rapids, Iowa. Housewife.
Rachel Callie (Conwell) Thoburn, B. S., Washington, D. C. Housewife.
Christine Mossman Corlett, B. S., Guthrie, Okla. Teacher.
Mary Emmeline (Cottrell) Payne, M. S., Cheyenne Wells, Colo. Housewife.
Phil Sheridan Creager, B. S., Kansas City, Mo. Telegraph editor, Kansas City *Journal*.
Kary Cadmus Davis, B. S., 69 Eddy street, Ithaca, N. Y. Student, Cornell University.
Thomas Clarke Davis, B. S., Benedict, Kan. Farmer.
Helen Pearl (Dow) Peck, B. S., 756 Jefferson avenue, Brooklyn, N. Y. Housewife.

Anna (Fairchild) White, B. S., 61 Poplar street, Brooklyn, N. Y. Housewife.
Harry Benson Gilstrap, B. S., Chandler, Okla. Editor and publisher.
Almon Arthur Gist, B. S., Fort Riley, Kan. Telegraph operator and station agent.
Amy Myrtle Harrington, B. S., Junction City, Kan. Teacher.
Delpha May Hoop, B. S., Manhattan, Kan. Teacher.
Mayme Amelia (Houghton) Brock, B. S., Manhattan, Kan. Housewife.
Willis Wesley Hutto, B. S., Riley, Kan. Teacher.
George Victor Johnson, B. S., Sedan, Kan. Editor.
Frank Mullett Linscott, B. S., D. V. S., Holton, Kan. Stock-raiser.
Bessie Belle Little, B. S., 425 Taylor street, Topeka, Kan. Teacher of physical culture.
Albert Edward Martin, B. S., Streator, Ill. Manager telephone company.
Nellie Evangeline (McDonald) Thayer, B. S., Manhattan, Kan. Housewife.
David Collins McDowell, B. S., Elkton, Colo. Merchant.
Alfred Midgley, B. S., Minneapolis, Kan. Clerk.
Madeleine Wade Milner, B. S., 6514 Kimbark avenue, Chicago, Ill. Assistant librarian, Armour Institute.
Paul Chambers Milner, B. S., 6514 Kimbark avenue, Chicago, Ill. Assistant exchange teller, Illinois Trust and Saving Bank.
Harry Elbridge Moore, B. S., Kansas City, Mo. Commission merchant.
John Otis Morse, B. S., Mound City, Kan. Farmer and teacher.
Hattie May Noyes, B. S., Wabaunsee, Kan. Teacher.
Louise Reed, B. S., 112 National avenue, San Diego, Cal. Principal of kindergarten.
Artemus Jackson Rudy, B. S., Fresno, Cal. Fruit-raiser.
Henry Vernon Rudy, B. S., Fresno, Cal. Fruit-raiser.
Charlotte Jane Short, M. S., Manhattan, Kan. Assistant in household economics, Kansas State Agricultural College.
Ben Skinner, B. S., M. D., Granada, Kan. Physican.
Caroline Scott (Stingley) Van Blarcom, B. S. Died in 1899.
Lillian Alice St. John, B. S., Manhattan, Kan. Teacher.
Ellis Cheney Thayer, B. S., Manhattan, Kan. Farmer.
Sam L. Van Blarcom, B. S., M. D., 2024 Walnut street, Kansas City, Kan. Railway postal clerk.
Frank Albert Waugh, M. S., Burlington, Vt. Professor of horticulture in Vermont University.
Fannie Elizabeth (Waugh) Davis, M. S., Ithaca, N. Y. Housewife.
Flora Emilie Wiest, B. S., Manhattan, Kan. Teacher.
Bertha (Winchip) Spilman, B. S., 509 Second street, S. E., Washington, D. C. Housewife.
Alfred Orin Wright, B. S., Lake Arthur, La. Editor.
Effie Jeanetta Zimmerman, M. S., Moray, Kan. Teacher and horticulturist.

1892.

Grace Maria Clark, M. S., Berea, Ky. Clerk in president's office, Berea College.
George L. Clothier, B. S., Manhattan, Kan. Assistant in botany, experiment station, Kansas State Agricultural College.
Lillian Clyde Criner, B. S., McPherson, Kan. Editor.
Harry Darnell, B. S., Gardner, Kan. Teacher.
William H. Edelblute, B. S., Harrison, Idaho.
Elizabeth (Edwards) Hartley, B. S., Manhattan, Kan. Housewife.
John Frost, B. S., Blue Rapids, Kan. Teacher.
Effie (Gilstrap) Frazier, B. S., Chandler, Okla. Housewife.
Ava (Hamill) Tillotson, M. S., Hill City, Kan. Housewife.
J N Harner, B. S. Died in 1897.
Loyall S. Harner, B. S., Junction City, Kan. Farmer.
Charles Pinckney Hartley, B. S., Manhattan, Kan. Postgraduate student and assistant, Kansas State Agricultural College.
John William Abraham Hartley, B. S., Manhattan, Kan. Farmer.
James Laird McDowell, B. S., Cripple Creek, Colo. Miner.
Robert A. McIlvaine, B. S., Durham, Kan. Principal of schools.
Kate (Oldham) Sisson, B. S., Manhattan, Kan. Housewife.
Daniel Henry Otis, M. S., Manhattan, Kan. Assistant in dairying, Kansas State Agricultural College.
Ivan Bryan Parker, B. S., M. D., Hill City, Kan. Physician, and president Graham Connty State Bank.
Warner S. Pope, B. S. Died in 1899.
Burton Homer Pugh, B. S., Oakland, Kan. Farmer.
Elias W. Reed, B. S., St. Clere, Kan. Farmer.
Robert Stirling Reed, B. S., Emporia, Kan. Student, State Normal School.
Arthur Daniel Rice, B. S., Granada, Colo. Minister.

Fred. C. Sears M. S., Wolfville, Nova Scotia. Dirctor of provincial school of horticulture.
Birdie E. Secrest, B. S., Randolph, Kan. Clerk.
May Secrest, B. S., San Francisco, Cal. Teacher, postgraduate student, and student artist.
Ruth Tipton (Stokes) Sears, M. S., Wolfville, Nova Scotia. Housewife.
Harry W. Stone, B. S., Portland, Ore. General secretary Y. M. C. A.
Walter Percival Tucker, B. S., San Antonio, Tex. Bookkeeper.
Mary Alice (Vail) Waugh, B. S., Burlington, Vt. Housewife.
Robert Lynn Wallis, B. S. Died in 1895.
Ora Rebecca (Wells) Traxler, B. S., Waterville, Kan. Housewife.
Daniel F. Wickman, B. S., P. O. box 107, Topeka, Kan. Clerk in Santa Fe railroad offices.
George Washington Wildin, B. S., Savannah, Ga. Mechanical engineer.
Charles Ernest Yeoman, B. S., La Crosse, Kan.

1893.

Edmund Clarence Abbott, B. S., Red River, N. M. Lawyer.
Edwin McMaster Stanton Curtis, B. S., Equitable building, St. Louis. Clerk in Missouri Pacific railroad office.
Corinne Louise (Daly) Burtis, B. S., Stillwater, Okla. Housewife.
Laura Greeley Day, B. S., Menominee, Wis. Instructor in household economy, Stout Manual Training School.
Ione (Dewey) Sutherland, B. S., Chicago, Ill. Honsewife.
Albert Dickens, B. S., Manhattan, Kan. Assistant horticulturist, Kansas State Agricultural College.
Mary Mand Gardiner, M. S., Ames, Iowa. Instructor in domestic economy, Iowa State College.
Susie (Hall) Linscott, B. S., Holton, Kan. Housewife.
Mary Frances Burgoyne Harman, B. S., Olathe, Kan. Teacher, deaf and dumb asylum.
Ivy Frances Harner, M. S., Ruston, La. Teacher of domestic science, Louisiana Industrial Institute.
Margaretha Elise Horn, B. S., Dr. O., 397 McKinstry avenue, Detroit, Mich. Teacher of sciences, Detroit high school.
Marcia Ione Hulett, B. S., Akron, Ohio. Osteopathist.
Mac F. Hulett, B. S, 120 East Gay street, Columbus, Ohio. Osteopathist.
Fred Hulse, B. S., Manhattan, Kan. Teamster, Kansas State Agricultural College farm.
Charles Augustus Kimball, B. S., Courtland, Kan. Publisher.
Mand Ethel Knickerbocker, B. S., Terraville, S. D. Teacher.
Thomas Eddy Lyon, B. S., 507 Hill street, Ann Arbor. Student of law.
William Otis Lyon, B. S., Emporia, Kan. Teacher.
McLeod Wilson McCrea, B. S., Winchester, Kan. Teacher.
Rose Edith McDowell, B. S., Manhattan, Kan. At home.
George Lane Molton, B. S., Winfield, Kan. Insurance and loan agent.
Eusebia DeLong Mudge, B. S., 410 Olive street, Kansas City, Mo. At home.
Nora (Newell) Hatch, B. S., Manhattan, Kan. Housewife.
Augnst Fred. Niemoller, B. S., Stitt, Kan. Teacher.
Susie Amanda Noyes, B. S. Died in 1894.
Henry Leamer Pellett, B. S., 1524 Chestnut street, Philadelphia, Pa. Physician.
Charles John Peterson, B. S., Topeka, Kan.
Carl Frederic Pfuetze, B. S., Manhattan, Kan. Railway postal clerk.
John Dewitt Riddell, B. S., M. D., Enterprise, Kan. Physician.
John Albert Rokes, B. S., Holton, Kan. Lawyer.
Agnes (Romick) Edgar, B. S., Halford, Kan. Housewife.
Fred. Raymond Smith, B. S., Manhattan, Kan. Lawyer and court stenographer.
George Wildman Smith, B. S., Manhattan, Kan. Medical student.
William Elmer Smith, B. S., Manhattan, Kan. Law student.
John Eugene Thackrey, B. S., Chapman, Kan. Minister.
Joseph B. Thoburn, B. S., Washington, D. C. Division of forestry.
Charles Henry Thompson, B. S., St. Louis, Mo. Missouri Botanical Garden.
George K. Thompson, B. S., Beattie, Kan. Teacher.
William James Yeoman, B. S.

1894.

Frank Weber Ames, B. S., 5323 Jackson avenue, Chicago, Ill. Clerk, National Steel Company.
Clara Francelia Castle, M. S., Manhattan, Kan. At home.
George Luther Christensen, B. S., Houghton, Mich. Instructor in mechanical engineering and drawing, Michigan School of Mines.
John Cornelius Christensen, B. S., Manhattan, Kan. Assistant county treasurer.
Lorena Estella Clemons, B. S., Manhattan, Kan. Secretary Kansas State Agricultural College.

Martha Cottrell, B. S., Wabaunsee, Kan. At home.
Serah Esther (Cottrell) Wright, B. S., Jennings, La. Housewife.
Alverta May Cress, B. S., Manhattan, Kan. At home.
Fannie Jane Cress, B. S., 71 Walton Plece, Chicago, Ill. Artist.
Ernest A. Donaven, B. S., M. D., Goodrich, Kan. Physician.
Jephthah W. Evans, B. S., Manhattan, Kan. Medical student.
Isahelle Russell Frisbie, B. S., Brookings, S. D. Professor of domestic economy, State Agricultural College.
Eugene Leonard Frowe, B. S. Died in 1898.
Walter Harling, B. S., Lehi, Utah. Principal of New West Academy.
Lorena Marguerite Helder, B. S., Manhattan, Kan. Assistant in music, Kansas State Agricultural College.
Mark V. Hester, B. S., Lawrence, Kan. Student, State University.
Cherles Ross Hutchings, B. S., Massachusetts huilding, Kansas City, Mo. Bridge huilder, Kansas City Bridge Company.
Isaac Jones, jr., B. S., Klondike, Alaska. Miner.
Stella Victoria Kimhall, B. S., Manhettan, Kan. Teacher.
Mary Eliza Lyman, B. S., 116 High street, Peoria, Ill. Assistent in domestic science, Bradley Polytechnic Institute.
William Henry Moore, B. S., Manhattan, Kan. Foremen of greenhouses, Kansas State Agricultural College.
Sarah (Moore) Foster, B. S., Mont Ide, Kan. Housewife.
James Francis Odle, B. S., Madison, Wis. Student, university.
Charles Randolph Pearson, B. S., Hoxie, Kan. Teacher.
Horace Greeley Pope, B. S., 406-407 Massachusetts building, Kansas City, Mo. Lawyer.
Minnie Louisa Romick, B. S, Niles, Kan. At home.
Winnie Luella (Romick) Chandler, B. S., Argentine, Kan. Housewife.
Victor Irvin Sandt, B. S., Home, Kan. Teacher.
John Alfred Scheel, B. S., Klondike, Alaska. Miner.
Jacoh Ulrich Secrest, B. S., Randolph, Kan. Farmer.
Charles Chrisfield Smith, B. S., Palo Alto, Cal. Student, Leland Stanford University.
Jennie Ruth Smith, B. S., Manhattan, Kan. Teacher in city schools.
Wesley Ohio Staver, B. S., 625 New York Life huilding, Kansas City, Mo. Lawyer.
John Stingley, B. S., 402 Aldeen Court, Kansas City, Mo. Freight offices.
John Edwin Taylor, B. S. Died in 1896.
Delhert L. Timhers, B. S., Beloit, Kan. Teacher
Phehe Carey Turner, B. S., Vera, Kan. Teacher.
Samuel Rohert Vincent, B. S., Orie, Okla. Teacher.
Lucy Helena Waters, B. S., Palo Alto, Cal. Postgraduate student, Leland Stenford University.

1895.

Edward Jones Abell, B. S., Smith Center, Kan. Principal of schools.
Carl D. Adams, B. S., Olathe, Kan. Teacher, asylum for deaf and dumh.
Rohert John Barnett, B. S., Manhattan, Kan. Principal of Central school.
Burton Wesley Conrad, B. S., Capioma, Kan. Farmer.
Florence Ruth Corbett, B. S., Brooklyn, N. Y. Student, Pratt Institute.
Sid Henry Creager, B. S., Kansas City, Mo. Railway postal clerk.
Elsie Emeline Crump, B. S., Manhatten, Kan. Teacher.
David Thomas Davies, B. S., Manhattan, Kan. Farmer.
Frank Andrew Dawley, B. S., Waldo, Kan. County clerk.
Daisy Day, M. S., Manhattan, Kan. At home.
Flora (Day) Barnett, B. S., Manhattan, Kan. Housewife.
George Adam Dean, B. S., Topeka, Kan. Farmer.
Lillie Christena Dial, B. S., Clehurne, Kan. Teacher.
Lucy Ellis, B. S., 705 Lane street, Topeka, Kan. Teacher.
Victor Emrick, B. S., 104 North Twelfth street, Portland, Ore. Auditor passenger department, Oregon Transportation and Navigation Company.
George Forsyth, B. S., Franklin, Ind. Sales agent.
Ernest Harrison Freeman, B. S., Topeka, Kan.
Florence Eleanor Fryhofer, B. S., Randolph, Kan. At home.
George William Fryhofer, B. S., Ellettsville, Ind. Banker.
Oscar Hugo Halstead, B. S., 218 South Sixth street, St. Joseph, Mo. Merchant.
Hortensia (Harman) Patten, B. S., Sycamore, Ill. Housewife.
John Bright Harman, B. S., Valley Falls, Kan. Farmer.
Clarence V. Holsinger, B. S., Rosedale, Kan. Fruit-raiser.

Christian Andrick Johnson, B. S., St. Louis, Mo. Medical student.
John James Johnson, B. S., St. Louis, Mo. Medical student.
Fred. Ralph Jolly, B. S., Manhattan, Kan. Newspaper reporter.
William Irvin Joss, B. S., Fairview, Kan. Teacher.
Maud Estella Kennett, B. S., Silver Lake, Kan. Teacher.
Myron Arthur Limhocker, B. S., 401 Portsmouth huilding, Kansas City, Kan. Lawyer.
Samuel Alexander McDowell, B. S., Elkton, Colo. Clerk.
Laura Sarah (McKeen) Smith, B. S., Russell, Kan. Housewife.
Theo. Wattles Morse, M. S., Kansas City, Mo. Journalist.
Oscar Albert Otten, B. S., Pierce Junction, Kan. Telegraph operator.
William Hackworth Painter, B. S., Lakeland, Kan. Stockman.
Charles Wesley Pape, B. S., Manhattan, Kan. Assistant in zoology, Kansas State Agricultural College.
Ethel (Patten) Ames, B. S., 5323 Jackson avenue, Chicago, Ill. Housewife.
John Vernon Patten, B. S., Sycamore, Ill. Manufacturer.
William H. Phipps, B. S., Manhattan, Kan. Secretary Kansas State Agricultural College.
Alice Julia (Quintard) Peck, B. S., Dallas, Texas. Housewife.
Frederick Ellsworth Rader, B. S., Manhattan, Kan. Farmer.
Ralph Waldo Rader, B. S., Manhattan, Kan. Farmer and teacher.
Ada Rice, B. S., Manhattan, Kan. Assistant in preparatory department, Kansas State Agricultural College.
Benjamin Franklin Simeon Royer, B. S., St. Joseph, Mo. Physician.
Charles Baxter Selby, B. S., Marion, Va. Lawyer.
Mabel Gertrude Selby, B. S., Argentine, Kan. Teacher.
Ernest P. Smith, B. S., Manhattan, Kan. Mechanic.
Frederick John Smith, B. S., Russell, Kan. Editor.
Kitty Myrtle (Smith) Wheeler, B. S., 66 East 122d street, New York city. Housewife.
Marietta Smith, B. S., Topeka, Kan. Student, Washhurn College.
William Henry Steuart, B. S., Victor, Colo. Mining engineer.
Cora Idella Stump, B. S., Manhattan, Kan. Teacher.
Dora (Thompson) Winter, B. S., Blue Rapids, Kan. Housewife.
Elven Creveling Trembly, B. S., Comiskey, Kan. Farmer.
George Carpenter Wheeler, B. S., 66 East One Hnndred and Twenty-second street, New York city. Railroad conductor.
Mary Elizaheth (Willard) Emrick, B. S., 104 North Twelfth street, Portlaud, Ore. Housewife.
Olive Mahel (Wilson) Holsinger, B. S., Rosedale, Kan. Housewife.
Ora Gertrude Yenawine, B. S., Manhattan, Kan. Assistant in sewing, Kansas State Agricultural College.

1896.

May Haines Bowen, B. S., Topeka, Kan. Student, Washhnrn College.
Con Morrison Buck, B. S., Wichita, Kan. Civil engineer on Santa Fe railroad.
Margaret Isaphene (Carlton) Doane, B. S., College Park, Md. Housewife.
William Annesley Cavenaugh, B. S., Fort Leavenworth, Kan. Second lieutenant company I, Twentieth infantry.
William Arthur Coe, B. S., Coloma, Kan. Farmer.
Charlotte Mahel (Cotton) Smith, B. S., Manhattan, Kan. Housewife.
Ernest Brown Coulson, B. S., Alva, Okla.
George Henry Dial, B. S., Clehurne, Kan. Teacher and farmer.
Charles Francis Doane, B. S., College Park, Md. Assistant bacteriologist.
John Berthold Dorman, B. S., box 206, Saratoga, N. Y. Teacher.
Bradford Dongherty, B. S., Kansas City, Kan. Collector.
Charles Silar Evans, B. S., Manila, P. I. Hospital corps.
Rohert Kilby Farrar, B. S., Axtell, Kan. Teacher.
George William Finley, B. S., Manhattan, Kan. Teacher.
Joanna Freeman, B. S. Died in 1897.
John Jacoh Fryhofer, B. S., Randolph, Kan. Farmer.
Elmer George Gihson, B. S., Willard, Kan. Teacher.
George Clifton Hall, B. S., Manhattan, Kan. Teacher and law student.
Alonzo Charles Havens, B. S., Dwight, Kan. Farmer.
Gertrnde Jnlia (Havens) Norton, B. S., St. Louis, Mo. Housewife.
Lawrence Wilhur Hayes, B. S., 1028 Kansas avenue, North Topeka, Kan. Attendant, asylnm for insane.
John Warren Holland, B. S., San Francisco, Cal.
Henry George Johnson. B. S., 358 Marsfiold street, Chicago, Ill. Student in dentistry.
Snsan Effie (Johnson) Cooper, B. S., Success, Kan. Housewife.

Marion Elizabetb Jones, B. S., Manhattan, Kan. Teacher.
Thomas Lormar Jones, B. S., 1000 Walnut street, Kansas City, Mo. Piano tnner.
Edward Clarence Joss, B. S., Fairview, Kan. Hardware merchant.
Royal S. Kellogg, B. S., Manhattan, Kan. Postgraduate assistant.
Mark Kirkpatrick, B. S., Fredonia, Kan. United States land surveyor.
Edith Lynette Lantz, B. S., Chapman, Kan. At home.
Sue Long, B. S., Manbattan, Kan. At home.
Cbarles W. Lyman, B. S., Salina, Kan.
Charles Dwin McCauley, B. S., 417 Madison street, Topeka, Kan. Draughtsman.
Charles Sumner Marty, B. S., Merriam, Kan. Farmer.
Elda Lenore (Keen) Moore, B. S., Manhattan, Kan. Housewife.
Arthur Houston Morgan, B. S., Hillside, Kan. Farmer and teacher.
Clara Verena Newell, B. S., Manhattan, Kan. Clerk.
Ellen Elizaheth Norton, B. S., Manhattan, Kan. Postgraduate student, Kansas State Agricultural College, and general secretary Young Women's Christian Association.
Jobn Bitting Smith Norton, B. S., St. Louis, Mo. Assistant in Missouri Botanical Garden.
Hattie A. Paddleford, B. S., Randolph, Kan. Teacher.
Mary Kerilla (Painter) Rogers, B. S., Ashland, Kan. Housewife.
Elva Luthera (Palmer) Thackrey, B. S., Chapman, Kan. Housewife.
Inez Luella (Palmer) Barrows, B. S., Washington, Kan. Housewife.
Fannie Parkinson, B. S., Princeton, Kan. Teacher.
Archie Carpenter Peck, B. S., Big Valley, Tex. Manager and proprietor of cotton-gin.
Arthur Louis Peter, B. S., 418 Mock building, Denver, Colo. Student, medical college.
Charles Edwin Pincomb, B. S., Hector, Kan. Stockman.
Mary Josephine Pincomb, B. S., Hector, Kan. At home.
John Poole, B. S., Briggs, Kan. Farmer.
Edgar Arthur Powell, B. S., Osage City, Kan. Farmer and stock-raiser.
Lisle Willits Pursel, B. S., corner Fourth and Maine streets, Joplin, Mo.
Howard Newton Rhodes, B. S., Manhattan, Kan. Clerk in post-office.
Ambrose Elliott Ridenonr, B. S., Randolph, Kan. Farmer.
Mary Etta Ridenour, B. S., Manhattan, Kan. Bookkeeper.
Isaac Archie Rohertson, B. S., Marshall, Mo. Telegraph operator.
Grace Anna Secrest, B. S., Randolph, Kan. Teacber.
Carl Snyder, B. S., Oskaloosa, Kan. Farmer.
Max Gilbert Spalding, B. S., 1319 Broadway, Kansas City, Mo. Shipping clerk.
Orville Ashford Stingley, B. S., 721 West Eleventh street, Kansas City, Mo. Meat inspector, Armour's.
Sadie Stingley, B. S., Manhattan, Kan. Teacher.
Gertrude Ella Stump, B. S., Manhattan, Kan. At home.
Miriam Esther Swingle, B. S., 116 High street, Peoria, Ill. Assistant in household economy, Bradley Polytechnic Institute.
William Elwood Thackrey, B. S.. Crestone, Colo. Stock-raiser.
James Dunhar Trumbull, B. S., Manhattan, Kan. Clerk.
Frank Edwin Uhl, B. S., Gardner, Kan. Dairy farmer.
Edwin H. Webster, B. S., Manhattan, Kan. Postgraduate student and assistant, farm department, Kansas State Agricultural College.

1897.

Cora Atwell, B. S., Manhattan, Kan. Teacher.
Roger William Bishoff, B. S., Endora, Kan. Farmer.
Mary Frances Carnell, B. S., Bnnker Hill, Kan. At home.
William Burns Chase, B. S., Hoyt, Kan. Hardware merchant.
Frank E. Cheadle, B. S., Erwin, Okla. Farmer.
Robert Waitman Clothier, B. S., Manhattan, Kan. Assistant in cbemistry, Kansas State Agricultural College.
Maggie A. (Correll) Uhl, B. S., Gardner, Kan. Housewife.
Mabel Crump, B. S., Manbattan, Kan. Telephone operator.
Fred Volley Dial, B. S., Clehnrne, Kan. Clerk.
Viola Grace Dille, B. S., Edgerton, Kan. At home.
Samuel Dolhy, B. S., Longford, Kan. Farmer.
George Doll, B. S., Larned, Kan. Teacher and farmer.
Anna Phillipina Engel, B. S., Manhattan, Kan. At home.
Emma Finley, B. S., Emporia, Kan. Student, State Normal School.
Martha Fox, B. S., Manhattan, Kan. Special student, Kansas State Agricultural College.
Philip Fox, B. S., Manila, P. I. Twentietb Kansas volunteers.

Ned Merrill Green, B. S., Ft. Crook, Neb. United States army.
Mary Eliza Haulenbeck, B. S., Manhattan, Kan. At home.
Lewellyn Gaines Hepworth, B. S., Burlington, Kan. Teacher and farmer.
Ina Emma Holroyd, B. S., Emporia, Kan. Student, State Normal School.
Myrtle Hattie Hood, B. S., Manhattan, Kan. At home.
Charles Henry Hoop, B. S., Belleville, Kan. Confectioner.
Winifred Anna (Houghton) Buck, B. S., Wichita, Kan. Housewife.
Bret Redmon Hull, B. S., Alta Vista, Kan. Lumber dealer.
Clay Berkey Ingman, B. S., Barnes, Kan. Farmer.
Gertrude May Lyman, B. S., Manhattan, Kan. Teacher.
Frederick Hugo Meyer, B. S., Menager, Kan. Farmer.
Valentine Maelzer, B. S., box 26, Salt Lake City, Utah.
Sherman Bodwell Newell, B. S., Zeandale, Kan. Teacher and farmer.
Oliver Ezra Noble, B. S., Manhattan, Kan. County surveyor.
Jesse Baker Norton, B. S., Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
Mary Augusta Norton, B. S., 912 Taylor avenue, St. Louis, Mo. Nurse, Mayfield Sanatarium.
Bertha Olivia Olson, B. S., Manhattan, Kan. At home.
Hilda Sophia Olson, B. S., Manhattan, Kan. Teacher.
Russell John Peck, B. S., Alma, Kan.
William Oscar Peterson, B. S., Monterey, Kan. Teacher.
Eva Louise Philbrook, B. S., Louisville, Kan.
Rufus M. Philbrook, B. S., Louisville, Kan.
William Joseph Rhoades, B. S., Shockey, Kan. Ranchman.
Carl Rice, B. S., Leavenworth, Kan. United States army.
Thomas Meade Robertson, B. S., Neosho Falls, Kan. Dentist.
Homer Joseph Robison, B. S., Topeka, Kan. Machinist.
Edward Shellenbaum, B. S., Randolph, Kan. Clerk in post-office.
Alice Myrtle Shofe, B. S., 125 Western avenue, Topeka, Kan. Student.
Charles Wesley Shull, B. S., Manhattan, Kan. Farmer.
Alfred Caleb Smith, B. S., Bakersfield, Cal. Student, State University.
Phœbe Jane Smith, B. S., Emporia, Kan. Student, Kansas State Normal School.
Wilhelmina Henrietta Spohr, B. S., Manhattan, Kan. Teacher.
Charles Harrison Stokely, B. S., Sedalia, Mo. Student, Central Business College.
John E. Trembly, B. S., Comiskey, Kan. Farmer.
Harriet Agnes Vandivert, B. S., Ames, Iowa. Postgraduate student, Iowa State College.
Olive Voiles, B. S., Manhattan, Kan. At home.
John Minton Westgate, B. S., Westgate, Kan. Assistant botanist, Kansas State Agricultural College.
Mark Wheeler, B. S., Manila. First lieutenant, Fourth United States infantry.
Clare Annie Wilson, B. S., Mapleton, Kan. Teacher.

1898.

All the following have degree *B. S.:*

Emory Sherwood Adams, Manila. Company M, Twentieth Kansas volunteers.
Joshua William Adams, Cheyenne Wells, Colo. Rain Belt Experiment Station.
Samuel John Adams, general secretary of Kansas State Agricultural College Y. M. C. A., and postgradnate student.
Thomas Walter Allison, Florence, Kan. Farmer and fruit-grower.
William Anderson, Clebnrne, Kan. Teacher.
Jessie Geneva Bayless, Yates Center, Kan. At home.
Hope Brady, Manhattan, Kan. Teacher.
Robert Henry Brown, Manhattan, Kan. Assistant in music, Kansas State Agricultnral College.
Earl Carver Butterfield, Millbrook, N. Y.
John Alfred Conover, herdsman, farm department, Kansas State Agricultural College.
Minnie Lanra Copeland, Manhattan, Kan. Teacher.
Lucy Maria Cottrell, Wabaunsee, Kan. At home.
Anna Magdalena Dahl, Webber, Kan. Teacher.
Inga Josephine Dahl, Wehber, Kan. At home.
Cassie Belle Dille, Edgerton, Kan. Teacher.
Emma Phillipine Doll, Larned, Kan. Teacher.
Cora Elizabeth Ewalt, Manhattan, Kan. At home.
Gny Francis Farley, Melvern, Kan. Farmer.
Mary (Finley) Ridenour, Randolph, Kan. Housewife.
Arthur Lorenzo Frowe, Pavilion, Kan. Teacher.

William Logan Hall, Manhattan, Kan. Assistant in horticulture, Kansas State Agricultural College.
Anna Viola Hanson, Manhattan, Kan. Clerk.
Walter Eugene Hardy, 610 Cherokee street, Leavenworth, Kan.
James Madison Harvey, Junction City, Kan. Farmer.
Emmett Vivian Hoffman, Enterprise, Kan. Bookkeeper.
Guy Dudley Hulett, Kirksville, Mo. Student of osteopathy.
Ada Ingman, Barnes, Kan. At home.
Ary Cordelia Johnson, Success, Kan. At home.
Charles Percy King, Eldorado Springs, Mo. Lumberman.
Bessie May Locke, Riley, Kan. Teacher.
Olive Long, Manhattan, Kan. Clerk in secretary's office, Kansas State Agricultural College.
William Andrew McCullough, Delavan, Kan. Farmer.
Inez Isadore Manchester, Chiles, Kan. Teacher.
Florence Adelia Martin, Junction City, Kan. At home.
Henry Alba Martin, Lyndon, Kan. Creamery.
Alice Maude Melton, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
George Gerkein Menke, Garden City, Kan. Hotel keeper.
Mary Frances Minis, Manhattan, Kan. Teacher.
May Moore, Manhattan, Kan. At home.
Hattie Grace Nichols, Liberal, Kan. Teacher.
Schuyler Nichols, Liberal, Kan. Medical student.
Lucy Junie Parks, Manhattan, Kan. At home.
Ernest Byron Patten, Silver Lake, Kan. Farmer.
Clara Jeanette Perry, Manhattan, Kan. Assistant in printing-office, Kansas State Agricultural College.
Emilie Matilda Pfuetze, Manhattan, Kan. Teacher.
John Martin Pierce, Healdsburg, Cal.
Raymond Haines Pond, Ann Arbor, Mich. Student, State University.
William Poole, Briggs, Kan. Farmer.
Willis Thomas Pope, Eureka, Kan. Horticulturist.
Nora May Reed, Genoa, Ill. Teacher.
Gertrude Elizabeth Rhodes, Manhattan, Kan. At home.
Henry William Rogler, Matfield Green, Kan. Superintendent stock ranch.
Ferdinand John Rumold, Emporia, Kan. Student, State Normal School.
Martin Wilbur Sanderson, Reedville, Kan. Farmer.
Olive Maria Shelden, Manhattan, Kan. At home.
Edwin Lee Smith, Manhattan, Kan. Teacher.
Oliver Russell Smith, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
Bertha Spohr, Olathe, Kan. Teacher in deaf and dumb institution.
Andrew B. Symns, Brenner, Kan. Farmer.
Cora Thackrey, Randolph, Kan. Teacher.
Harriet Emerson Thackrey, Valentine, Neb. Teacher.
Henry Marsden Thomas, Melvern, Kan. Farmer.
Elsie Lucile Waters, Keats, Kan. Teacher.
Fred Dorsey Waters, Dillon, Colo.
Abner Davis Whipple, postgraduate student and assistant, Kansas State Agricultural College.
Adelaide Frances Wilder, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
Josephine Hannah Wilder, Manhattan, Kan. At home.
Frank Yeoman, 50 Water-works building, Kansas City, Mo. Law student.
Frederick Zimmerman, Kirksville, Mo. Superintendent dairy farm.

SUMMARY.

The number of graduates up to 1899 is 643, of whom 233 are women. Graduates previous to 1877 pursued, with two exceptions, a classical course, and received the degree of bachelor of arts. Since 1877, all have received the degree of bachelor of science, after a four years' course in the sciences, with good English training.

Of the 410 men, 15 are deceased, and the remainder are reported in the following occupations:

Farmers and stock-raisers	73
Fruit-growers, nurserymen, and gardeners	10
Professors and instructors in agricultural colleges	7
President of polytechnic institute	1
College professors not otherwise classified	14
Superintendent of agricultural experiment station	1
Assistants in agricultural experiment stations	3
In United States department of agriculture	5
Assistants in botanical garden	2
In military service	13
In United States government civil service	8
Teachers and students of special sciences	12
Superintendents of public schools	10
Teachers in public schools	38
Teachers in Indian schools	2
Postgraduate students in K. S. A. C	10
Students in other institutions	11
Mechanics	6
Journalists	20
Ministers and secretaries of Y. M. C. A	10
Physicians and students of medicine, druggists, and dentists	25
Lawyers and students of law	28
Civil, electrical, mining and mechanical engineers	7
Architects and builders	4
Other professional men	3
Manufacturers	9
Merchants	24
Bankers	6
General business men	24
Telegraph operators and railroad agents	6
Officials and official clerks	14
Miners	3
Unknown	16
Total	415
In two occupations	20
	395

Of the 233 women, 8 are deceased, and the remainder occupied as follows:

Housewives	82
At home	33
Teachers of household economy	14
Teachers in public schools	55
Teachers and students of special sciences	5
Teachers of art and music	2
Bookkeepers, stenographers, and clerks	14
Milliners and dressmakers	2
Librarian	1
Nurses	3
Postgraduate students in K. S. A. C	6
Students in other institutions	6
Unknown	3
Total	226
In two occupations	1
	225

98-99

Announcements for 1899-1900.

Board of Instruction, 1899-1900.

ERNEST R. NICHOLS, A. M. (*University of Iowa*), ACTING PRESIDENT,
Professor of Physics and Electrical Engineering.

JOHN D. WALTERS, M. S. (*Kansas State Agricultural College*),
Professor of Industrial Art and Designing.

ALEXANDER B. BROWN (*Boston Music School*), A. M. (*Olivet*),
Professor of Music.

JULIUS T. WILLARD, M. S. (*Kansas State Agricultural College*),
Professor of Applied Chemistry.

ALBERT S. HITCHCOCK, M. S. (*Iowa State Agricultural College*),
Professor of Botany.

PAUL FISCHER, B. AGR., M. V. D. (*Ohio State University*),
Professor of Veterinary Science.

HENRY M. COTTRELL, M. S. (*Kansas State Agricultural College*),
Professor of Agriculture, Superintendent of Farm.

MISS MARY F. WINSTON, PH. D. (*Goettingen*),
Professor of Mathematics.

FREDRIC AUGUSTUS METCALF, O. M. (*Emerson College of Oratory*),
Professor of Oratory.

GEORGE F. WEIDA, PH. D. (*Johns Hopkins*),
Professor of Pnre Chemistry.

MISS MINNIE AVA NELLIE STONER (*Boston Normal School of Household Arts*), B. S. (*South Dakota Agricultural College*),
Professor of Domestic Science, Dean of Women's Department.

JOSEPH D. HARPER, M. S. (*Rose Polytechnic Institute*),
Professor of Mechanical Engineering, Superintendent of Shops.

EDWIN A. POPENOE, A. M. (*Washburn*),
Professor of Horticulture and Entomology, Superintendent of Orchards and Gardens.

....
Professor of History and Economics.

.....

Professor of English.

MISS HARRIET HOWELL (*Pratt Institute*),
Superintendent of Domestic Art.

JOSHUA D. RICKMAN, I. T. U.,
Superintendent of Printing.

MISS LORENA E. CLEMONS, B. S. (*Kansas State Agricultural College*),
Secretary.

SEPTIMUS SISSON, S. B. (*Chicago*), V. S. (*Toronto*),
Associate Professor of Veterinary Science.

MISS JOSEPHINE C. HARPER,
Instructor in Mathematics.

MISS ALICE RUPP,
Instructor in English.

ROBERT B. MITCHELL, B. S. (*Kansas State Agricultural College*),
Cadet Major and Acting Commandant. Assistant in Veterinary Science.

.....

Instructor in Physical Culture.

MISS JOSEPHINE BERRY,
Lihrarian.

WILLIAM L. HOUSE,
Foreman of Carpenter Shop.

ENOS HARROLD,
Foreman of Iron Shop.

DANIEL H. OTIS, M. S. (*Kansas State Agricultural College*),
Assistant in Dairying.

MISS LORENA M. HELDER, B. S. (*Kansas State Agricultural College*),
M. T. (*Kansas Conservatory of Music*),
Assistant in Music.

PERCIVAL J. PARROTT, M. A. (*Kansas University*),
Assistant in Entomology.

CHARLES W. PAPE, M. S. (*Kansas State Agricultural College*),
Assistant in Veterinary Science and Biology.

ROBERT W. CLOTHIER, M. S. (*Kansas State Agricultural College*),
Assistant in Chemistry.

MISS MARGARET J. MINIS,
Assistant Librarian.

ROYAL S. KELLOGG, M. S. (*Kansas State Agricultural College*),
General Assistant.

ROBERT H. BROWN, B. S. (*Kansas State Agricultural College*),
M. T. (*Kansas Conservatory of Music*),
Assistant in Music.

JOHN M. WESTGATE, B. S. (*Kansas State Agricultural College*),
Assistant in Botany.

MISS MAY SECREST, B. S. (*Kansas State Agricultural College*),
Assistant in Domestic Art.

WM. ANDERSON, B. S. (*Kansas State Agricultural College*),
Assistant in Mathematics.

MISS GERTRUDE BARNES,
Assistant Librarian.

ALBERT DICKENS, B. S. (*Kansas State Agricultural College*),
Assistant in Horticulture.

WILLIAM BAXTER,
Foreman of Greenhouses.

J. E. SATTERTHWAITE,
Foreman Printing-office.

MISS C. JEANETTE PERRY, B. S. (*Kansas State Agricultural College*),
Assistant in Printing.

JOHN G. HANEY, B. S. (*Kansas State Agricultural College*),
Assistant in Field and Feeding Experiments.

MISS MARY B. PRITNER, B. S. (*Kansas State Agricultural College* ,
Assistant in Domestic Science.

B. S. McFARLAND,
Principal Preparatory Department.

MISS ADA RICE, B. S. (*Kansas State Agricultural College*),
Assistant in Preparatory Department.

Other Officers.

JACOB LUND, M. S. (*Kansas State Agricultural College*),
Engineer.

MISS OLIVE LONG, B. S. (*Kansas State Agricultural College*),
Executive Clerk.

W. N. LEWIS,
Janitor.

ARCHIE HUYCKE,
Secretary to President.

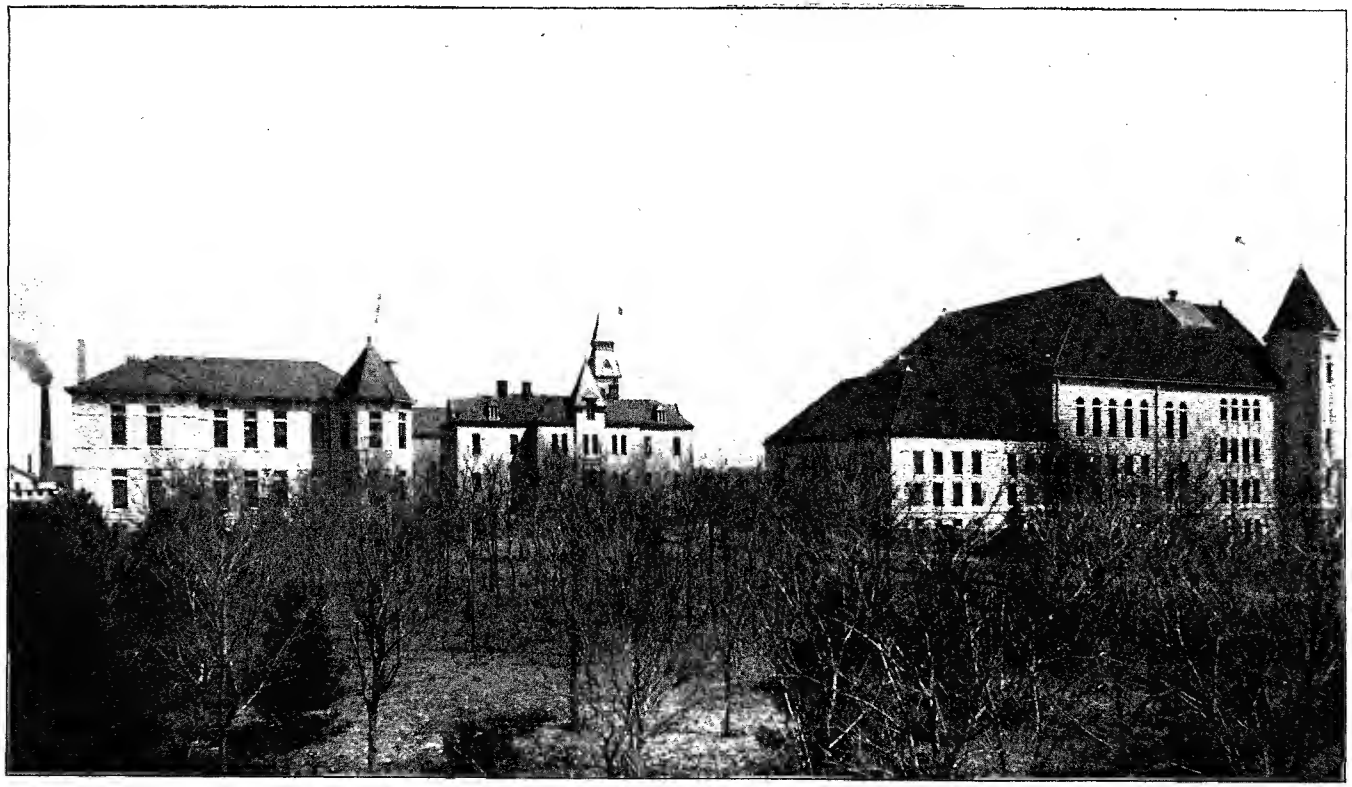
Experiment Station.

Council.

PROFESSOR WILLARD, Chemist, *Chairman.*
PROFESSOR HITCHCOCK, Botanist.
PROFESSOR FISCHER, Veterinarian.
PROFESSOR COTTRELL, Agriculturist.
PROFESSOR POPENOE, Entomologist and Horticulturist.

Assistants.

DANIEL H. OTIS, M. S., Assistant in Dairying.
PERCIVAL J. PARROTT, M. A., Assistant Entomologist.
ROBERT W. CLOTHIER, M. S., Assistant Chemist.
JOHN M. WESTGATE, B. S., Assistant Botanist.
ROBERT B. MITCHELL, B. S., Assistant in Veterinary Department.
ALBERT DICKENS, B. S., Assistant Horticulturist.
JOHN G. HANEY, B. S., Assistant in Field and Feeding Experiments.



DOMESTIC SCIENCE HALL. MAIN BUILDING. LIBRARY HALL.

LIBRARY HALL. MAIN BUILDING. CHEMICAL LABORATORY.

History and Resources.

AN act of congress, approved July 2, 1862, gave to each state public lands to the amount of 30,000 acres for each of the senators and representatives in congress according to the census of 1860, for the "endowment, support and maintenance of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, . . . in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

Under this act, the state of Kansas received 82,313.53 acres of land, and, in 1863, established the State Agricultural College, by endowing with these lands Bluemont College, which had been erected two miles from Manhattan, under the auspices of the Methodist Episcopal Church, but was presented to the state for the purpose named in the act of congress.

In 1873 the College was reorganized upon a thoroughly industrial basis, with prominence given to practical agriculture and related sciences; and in 1875 the furniture and apparatus of the College were moved to the farm of 223 acres, one mile from the city of Manhattan. On this fine location the state has provided buildings costing $257,000; of these a description is given elsewhere. The farm and grounds, furniture, stock and other illustrative apparatus cost $183,000. The entire College estate comprises 323 acres, 100 lying one mile west of the College in two tracts of twenty and eighty acres, respectively. The present value of buildings, grounds, apparatus, etc., is almost equal to the sum of all appropriations by the state. Nearly all the lands have been sold, giving a fund of $503,035.60, which is by law invested in bonds, the interest alone being used for the current expenses of the College.

The annual income from the endowment fund—about $28,000—is supplemented by an appropriation under an act of congress approved August 30, 1890, of $15,000 for 1890, and a sum increasing each year by $1000 until the annual amount shall be $25,000. This fund, now $25,000, is "to be applied only to instruction in agriculture, the mechanic arts and the English language, and the various branches of mathematical, physical, natural and economic science, with special

reference to their application in the industries of life, and to the facilities for such instruction." "No portion of said moneys shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation or repair of any building or buildings."

Nearly the expense of instruction is thus provided for, and the state is left to erect and maintain the necessary buildings and meet expenses in management of the funds.

Under an act of congress approved March 7, 1887, the College receives, by annual appropriations in congress, $15,000 a year for the maintenance of an experiment station, "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." The property of the Station, including a building erected especially for its use, amounts to more than $16,000.

Grounds and Buildings.

The College grounds and buildings, occupying an elevation at the western limits of the city of Manhattan, and facing towards the city, are beautiful in location. The grounds include an irregular plat in the midst of a fine farm, with orchard, vineyard and sample gardens attached, the whole being surrounded by durable stone walls. The grounds are tastefully laid out and extensively planted, according to the design of a professional landscape-gardener, while well-graveled drives and good walks lead to the various buildings. All of these are of the famed Manhattan limestone, of simple but neat styles of architecture, and admirably suited to their use. All recitation rooms are excellently lighted and ventilated, and all are heated by steam or hot water. A complete system of sewerage has been provided. Following is a brief description of the principal

College Buildings.

COLLEGE (main), 152 x 250 feet in extreme dimensions, arranged in three distinct structures, with connecting corridors. This building contains, in its two stories and basement, offices of President and Secretary, cloak-rooms, studies, chapel, printing-office, and seventeen class-rooms.

CHEMICAL LABORATORY, one story, 26 x 90 and 46 x 75 feet of floor space, in form of a cross. It contains seven rooms, occupied by the department of chemistry and mineralogy.

MECHANICS HALL, 39 x 103 feet, two stories, and 40 x 80 feet, one story, occupied by wood and iron shops, finishing shop, and class-room. Extensive additions will be made to the shops this fall, at a cost of $10,000. A central steam plant furnishes heat and power to the buildings.

HORTICULTURAL HALL, 32 x 80 feet, one story and cellar, having museum, classroom, and storage, with greenhouse attached.

HORTICULTURAL LABORATORY, with five propagating houses and insectary attached.

ARMORY AND ENTOMOLOGICAL LABORATORY, 46 x 96 feet, two stories. This building, which has served many purposes, is now fitted for an armory and drill room below, and for entomological classroom, laboratory, and museum, and veterinary museum, above.

LIBRARY AND AGRICULTURAL SCIENCE HALL, 100 x 140 feet, three and four stories. This building provides permanent quarters for the library, with ample reading-rooms; classrooms, laboratories, and cabinet room for zoology, veterinary science, and botany; a classroom for use in history and economics; and suitable rooms for various College societies.

DOMESTIC SCIENCE HALL, 84 x 70 feet, containing two stories and basement. The first story and the basement are occupied by the department of household economics, lunches to the students and members of the faculty being served in the basement. The second floor is occupied in part by the department of music and in part by that of sewing.

THE HORTICULTURAL BARN, a stone building, containing storeroom, granary, and stables for several horses.

THE FARM BARN, a double but connected stone structure, 50 x 75 feet and 48 x 96 feet, with an addition of sheds and experimental pens 40 x 50 feet. A basement, having stalls for seventy-five head of cattle, silos, motor room, and granaries, underlies the entire structure.

A DAIRY BUILDING, to cost $25,000, will be ready January 1, 1900, which will contain all modern improvements for butter-making and cheese-making, also, lecture-rooms, and offices of the farm department.

The Library.

The College library is one of the most important supplements to classroom instruction. It consists of 19,704 bound volumes and about 14,600 pamphlets. These books are mainly kept in a general library, but many volumes of technical character are withdrawn, and held in departmental libraries. All of the books are indexed in card catalogues which show their author, title, and to a large degree the details of their contents; also their location. Students are allowed free access to the shelves, a privilege and a source of culture that is given in perhaps no other library of its size in the country. Students may draw books for home use under simple and liberal regulations. The library is open daily, except on legal holidays, from seven A. M. to six P. M., and the librarian or an assistant is in constant attendance during this period to assist those who use the books. By all these means the library is utilized to the fullest extent and is of inestimable value.

The College subscribes for the leading literary, scientific and agricultural journals; while the principal daily and weekly papers of Kansas, and many from other states, are received in exchange for the

College publications. All these are kept on file for the use of students and Faculty.

The College has been designated as a depository of United States public documents for the fifth congressional district of Kansas, and 2260 volumes have already been received on this account.

An approximate estimate of the number of books, including public reports and bound periodicals, by classes, is as follows:

Classes.	*Vols.*	*Classes.*	*Vols.*
Agriculture	2960	Logic and philosophy	206
Horticulture	600	General science	850
Mechanics and engineering	552	Geography and travels	265
Mathematics and astronomy	270	Dictionaries and cyclopedias	206
Physics and meteorology	359	Education	445
Chemistry and mineralogy	330	Law	190
Geology	370	Administrative reports	364
Botany	1100	Public documents on deposit	2260
Zoology and entomology	570	Fiction	500
Biology	106	Poetry	200
Medical and veterinary science	396	Religion and morals	725
Military science	136	Fine arts	261
Domestic science	130	Bound magazines	1371
Economic science	672	Music	69
History and political science	1465	History of industry	200
Printing	84	Oratory	60
Industrial art and design	235	Experiment station bulletins and reports,	1686
English language and literature	1200	Miscellaneous books	59

Objects.

This College now accomplishes the objects of its endowment in several ways:

First, It gives a substantial education to men and women. Such general information and discipline of mind and character as help to make intelligent and useful citizens are offered in all its departments, while the students are kept in sympathy with the callings of the people.

Second, It teaches the sciences applied to the various industries of farm, shop, and home. Chemistry, physics, botany, entomology, zoölogy and mechanics are made prominent means of education to quick observation and accurate judgment. Careful study of the minerals, plants and animals themselves illustrates and fixes the daily lessons. At the same time lessons in agriculture, horticulture, engineering and household economy show the application of science; and all are enforced by actual experiment.

Third, It trains in the elements of the arts themselves, and imparts such skill as to make the hands ready instruments of thoughtful brains. The drill of the shops, gardens, farm and household departments is made a part of the general education for usefulness, and insures a means of living to all who make good use of it. At the same time it preserves habits of industry and manual exertion, and cultivates a taste for rural and domestic pursuits.

Fourth, It strives to increase our experimental knowledge of agriculture and horticulture. The provision for extensive and accurate researches, made by establishing the Experiment Station as a distinct department of the College offers assurance of more definite results than can be obtained by ordinary methods. The professors of agriculture, horticulture, chemistry, entomology, botany, and veterinary science, together with the President of the College, form the Experiment Station Council, by authority of which experiments are undertaken and carried on in the several departments, under the special supervision of the professors. These touch "the physiology of plants and animals; the diseases to which they are severally subject, with remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and waters; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses for

forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable." The bulletins of the Station, issued at least as often as once in three months, and now amounting to not less than 125,000 copies during the year, are sent, according to law, free of postage, to all newspapers in the state, and "to such individuals actually engaged in farming as may request the same, and as far as the means of the Station will permit." Press bulletins in editions of 2200 or more are issued weekly, through which many timely results are brought promptly to the people. Correspondence with reference to bulletins and experiments is welcomed, and may be addressed to the several members of the Council.

Fifth, It seeks to extend the influence of knowledge in practical affairs beyond the College itself. For this purpose, farmers' institutes have been organized in about sixty counties of the state in which from two to four members of the Faculty share with the people in lectures, essays and discussions upon topics of most interest to farmers and their families. These institutes, held for the past twenty years, have brought the College into direct sympathy with the people and their work, so as to make possible a general dissemination of the truths presented. Members of the Faculty are also prominently connected with the state associations for the promotion of agriculture, horticulture, the natural sciences, and education in general. Correspondence as to farmers' institutes or any questions of practical interest in agriculture or related sciences is desired.

The *Industrialist*, published by the College and edited by the Faculty, gives a wide circulation to matters of interest in the College.

Courses of Study.

With a view to providing for the wants of the various classes of students, the following courses of study are offered:

1. Four-years' courses in: (*a*) Agriculture, (*b*) domestic science, (*c*) general science, (*d*) mechanical engineering, (*e*) electrical engineering.
2. Short courses in: (*a*) Dairying, (*b*) domestic science, (*c*) agriculture and mechanics, (*d*) horticulture and mechanics.
3. Apprentice courses in the shops, and in the printing-office.
4. Special courses for those whose previous training and peculiar needs warrant and require them.

Full explanations of the several courses, and of the studies included in them, will be found under the proper headings, and a general view of four of the four years' courses and of the short courses is given on the following pages.

ALL COURSES.

FIRST YEAR.

FALL TERM.	Algebra	5
	English Readings	5
	Elementary Botany	5
	Hygiene	1
	Free-hand Drawing	2½
	Shop or *Sewing*	5
	Military Drill or *Calisthenics*	4
	Singing and *Notation.**	
WINTER TERM.	Algebra	5
	English Readings	5
	Agriculture or Household Economics	5
	Geometrical Drawing	2½
	Shop or *Sewing*	5
	Military Drill 2 / Tactics 1	3
	or *Calisthenics*	5
	Singing and *Notation.**	
SPRING TERM.	Geometry	5
	English Themes	5
	Object Drawing	2½
	Elementary Physics	5
	Shop or *Sewing*	5
	Military Drill or *Calisthenics*	5
	Singing and *Notation.**	

Four-Year Courses.

This and the three following pages give a general view of the four years' courses of study. The first year is the same for all students, excepting that the young men take military drill, agriculture, and shop work, while the young women take calisthenics, household economics, and sewing.

Figures following studies show class hours per week. Subjects in *italic type* require no study outside of class. Military drill is optional for young men of the third and fourth years. In the fourth year certain terms are open for electives in the science course and domestic science course. The electives are chosen under the direction of the Faculty. The following list is announced, and others will be provided as demanded in so far as the teaching force available will permit:

FALL TERM.	WINTER TERM.	SPRING TERM.
Analytical Geometry.	Calculus.	Calculus.
Domestic Science.	Domestic Science.	Domestic Science.
Chemistry.	Chemistry.	Chemistry.
Comparative Anatomy.	Veterinary Science.	Breeds and Breeding.
German.	German.	German.
Botany.	Entomology.	Botany.
	Horticulture.	Entomology.
		Forestry and Landscape-gardening.
		Physics.

* Music by special permission at any time during the course.

COURSES OF STUDY—Continued.

SECOND YEAR.

	AGRICULTURE.	DOMESTIC SCIENCE.	SCIENCE.	MECH. ENGINEERING.
FALL TERM.	Chemistry ..... 5 *Laboratory* ..... 2½ Geometry ..... 5 Horticulture ..... 5 *Industrial, Horticulture*, 5 *Oratory* ..... 5 *Military Drill* ..... 5 *Music.**	Chemistry ..... 5 *Laboratory* ..... 2½ Geometry ..... 5 Horticulture ..... 5 *Industrial* ..... 5 *Calisthenics* ..... 5 *Music.**	Chemistry ..... 5 *Laboratory* ..... 2½ Geometry ..... 5 Horticulture ..... 5 *Industrial* ..... 5 *Military Drill* or *Calisthenics* ..... 5 *Music.**	Chemistry ..... 5 *Laboratory* ..... 2½ Geometry ..... 5 Projection Drawing ..... 5 *Oratory* ..... 5 *Shop* ..... 5 *Military Drill* ..... 5 *Music.**
WINTER TERM.	Organic Chemistry ..... 3 Chemistry of Metals ..... 2 *Laboratory* ..... 2½ Trigonometry ..... 5 Dairying ..... 5 *Laboratory* ..... 10 Military Science 3	Organic Chemistry ..... 3 Chemistry of Metals ..... 2 *Laboratory* ..... 2½ Trigonometry or American Literature .. 5 Oratory ..... 2 or 3 Dressmaking ..... 5 *Laboratory* ..... 5 *Calisthenics* 5	Organic Chemistry ..... 3 Chemistry of Metals ..... 2 *Laboratory* ..... 2½ Trigonometry ..... 5 Physiology ..... 5 Oratory ..... 2 or 3 *Industrial* ..... 5 Military Science ..... 3 or *Calisthenics* 5	Mechanics ..... 5 Chemistry of Metals ..... 2 *Laboratory* ..... 2½ Trigonometry ..... 5 *Projection Drawing* .... 5 *Shop* and *Lectures* ..... 10 Military Science 3
SPRING TERM.	Analytical Chemistry .... 2½ *Laboratory* ..... 7½ Entomology ..... 5 Tillage and Fertility ..... 5 Physiology ..... 5 *Surveying* ..... 2 *Military Drill* 5	Analytical Chemistry .... 2½ *Laboratory* ..... 7½ Entomology ..... 5 Oratory or Music ... 2 or 3 Physiology ..... 5 *Calisthenics* 5	Analytical Chemistry .... 2½ *Laboratory* ..... 7½ Entomology ..... 5 Oratory ..... 2 or 3 Higher Algebra ..... 5 *Surveying* ..... 2 *Military Drill* or *Calisthenics* 5	Analytical Chemistry ..... 2½ *Laboratory* ..... 7½ Physics ..... 3 Hydraulics ..... 2 Higher Algebra ..... 5 *Axonometric Drawing* .. 5 *Shop* ..... 5 *Military Drill* 5

COURSES OF STUDY—Continued.

THIRD YEAR.

	AGRICULTURE.	DOMESTIC SCIENCE.	SCIENCE.	MECH. ENGINEERING.
FALL TERM.	Rhetoric ..... 5 General History ..... 5 Agricultural Chemistry and Soil Physics..... 5 Hygiene of Farm Animals..... 3 *Oratory* 5	Rhetoric ..... 5 General History ..... 5 Chemistry of Cookery.... 5 Domestic Science..... 2 *Laboratory*..... 5 *Oratory* or *Music*..... 5	Rhetoric ..... 5 General History ..... 5 Oratory ..... 2 Zoölogy ..... 2½ *Laboratory*..... 7½ *Projection Drawing*.... 2½ *Industriat*..... 5	Rhetoric..... 5 General History..... 5 Analytical Geometry .... 5 Descriptive Geometry ... 5 *Shop* and *Lectures*..... 7½
WINTER TERM.	Nineteenth Cent. Hist.... 5 Civics..... 5 Chemistry of Foods (½ t.) } 5 Stock Feeding (½ t.)..... } Zoölogy..... 2½ *Laboratory*..... 7½ *Industrial Horticulture*, 5	Nineteenth Cent. Hist... 5 Civics..... 5 Chemistry of Foods (½ t.) } 5 Home Architecture (½ t.) } Domestic Science..... 2 *Laboratory*..... 5 *Ftoriculture*..... 5	Nineteenth Cent. Hist.... 5 Civics..... 5 Projection Drawing (½ t.) } 5 Chemistry of Foods (½ t.) } Geology..... 5 *Industrial*..... 5	Nineteenth Cent. Hist... 5 Civics ..... 5 Calculus..... 5 *Oratory*..... 5 *Mechanical Drawing*.. 5 *Graphic Statics*..... 2½ *Shop*..... 5
SPRING TERM.	Economic Principles..... 5 Geology..... 5 Horticultnre..... 5 Stock Feeding..... 5 *Agricultural Mechanics*, 5	Economic Principles..... 5 Geology..... 5 Zoölogy..... 2½ *Laboratory*..... 7½ Domestic Science..... 2 *Laboratory*..... 5	Economic Principles..... 5 Logic ..... 5 Bacteriology..... 4 *Laboratory*..... 2½ Perspective and Sketching..... 2½ *Industrial*..... 5	Economic Principles..... 5 Calcnlus..... 5 Principles of Mechanism ..... 5 Perspective and Sketching..... 2½ *Machine Design*..... 5 *Shop*..... 7½

COURSES OF STUDY—Continued.

		AGRICULTURE.	DOMESTIC SCIENCE.	SCIENCE.	MECH. ENGINEERING.
FOURTH YEAR.	FALL TERM.	Physics ..... 5 History of Industries.... 5 Bacteriology ..... 4 *Laboratory* ..... 2½ Comparative Anatomy... 5 *Industrial, Agriculture*, 5	Physics ..... 5 History of Industries.... 5 Bacteriology..... 4 *Laboratory*..... 2½ Oratory or Music ..... 3 Therapeutic Cookery ... 2 *Laboratory*..... 5	Physics ..... 5 History of Industries... 5 Elective..... 5 Oratory ..... 5 *Industrial*..... 5	Physics ..... 5 History of Industries .... 5 Mechanics of Materials.. 5 *Eng. Laboratory*..... 5 *Foundations*..... 5 *Shop* 5
	WINTER TERM.	Physics..... 5 Horticulture....:..... 5 Physiological Botany.... 5 *Laboratory* ..... 5 Veterinary Science..... 5	Physics ..... 5 English Literature..... 5 Physiological Botany.... 5 *Laboratory*..... 5 Emergency Lectures.... 2½ Special Physiology..... 2½	Physics ..... 5 English Literature..... 5 Physiological Botany ... 5 *Laboratory*..... 5 Elective..... 5	Physics ..... 5 Applied Mechanics ..... 5 Engineering Power Plants..... 5 *Eng. Laboratory*..... 5 *Machine Design*..... 5 *Shop* 5
	SPRING TERM.	English Literature .. ... 5 Breeds and Breeding.... 5 Plant Diseases and Plant Breeding..... 5 Agricultural Economics . 5 Thesis.	English Literature..... 5 Psychology..... 5 Elective..... 5 Demonstrations..... 5 Thesis.	English Literature..... 5 Psychology..... 5 Elective..... 5 *Object Drawing*..... 5 Thesis.	English Literature..... 5 Applied Mechanics ..... 5 Thermodynamics..... 5 *Machine Design*..... 10 Thesis.

The Short Courses.

These short courses are given only in the terms indicated. Applicants over eighteen years of age and with the rudiments of a common-school education are ndmitted to these courses without examination, but at the beginning of the respective terms only.

Dairy School Course.

ONE WINTER TERM.

Principles of Agri..(½t) } Dairy Bookkeeping,(½t) }	5
Dairying.....(½t) } Creamery or Private Butter-making or Cheese-making (½t) }	5
Feeds and Feeding..(½t) } Breeds and Breeding(½t) }	5
Bacteriology.....	3
Diseases of Dairy Animals..	2
Boiler and Engine.....	5
For Farmers: *Milk Testing and Private Butter-making*.....	20
Creamerymen: *Milk Testing and Creamery Butter-making*.....	20
Cheese-makers: *Milk Testing and Factory Cheese-making*.....	20

Farmers' Short Course.

(A Short Course in Agriculture, Horticultnre, and Mechanics.)

FIRST YEAR, WINTER TERM.

Feeds and Feeding.....	5
Horticulture, Entomology.....	5
Crop Production, Bookkeeping.....	5
Diseases of Farm Animals and Bacteriology.....	5
Fruit Propagation.....	5
Blacksmithing, Repairing.....	10
Science Lectures.....	1

SECOND YEAR, WINTER TERM.

HORTICULTURE.		AGRICULTURE.	
Vegetable Gardening and Small-fruit Culture.....	5	Breeds and Breeding.....	5
Orchard Treatment, Pomology.....	5	Dairying, Farm Architecture.....	5
Diseases and Insects.....	5	Botany.....	5
Physics and Chemistry...	5	Physics and Chemistry...	5
Shops, Farm Carpentry, etc.....	10	*Shops, Farm Carpentry, etc*.....	10
Horticultural Practice..	5	*Farm Practice*.....	5
Science Lectures.....	1	*Science Lectures*.....	1

Domestic Science Short Course.

FIRST YEAR, FALL TERM.

Lectures and Practice in Cooking.....	15
Drawing.....	5
Home Sanitation and Household Accounts....	1
Sewing.....	16
Vegetable Gardening and Floriculture.....	5

SECOND YEAR, FALL TERM.

Lectures and Practice in Cooking and Home Nursing.....	10
Physics.....(½t) } Chemistry.....(½t) }	5
Bacteriology and Physiology.....	2½
Dressmaking.....	12

Subjects in *italic type* require no home work.

Industrial Training.

This institution is preëminently industrial in its aims, methods, and tendencies. While the pure sciences, mathematics and other studies are rigorously taught, there is constantly present a practical atmosphere which incites the student to an application of the principles taught, and thus lends interest and value to the work. In nearly every term of the four years' course the student gives one hour per day to industrial training of one kind or another. This awakens and deepens sympathy with industry and toil, impresses the student with the essential dignity of labor, thus educating toward the industries instead of away from them, and lays a good foundation for a life work in industrial and technical lines. Even should students not all return to the farm, the shop, or to housewifery, the wider knowledge afforded them and the broader sympathies engendered cannot but redound to their good and to the advantage of society at large and the industrial classes in particular.

Throughout the first year young men take their industrial in the shops. They thus get a familiarity with tools and methods which enables them to do the wood and iron work commonly needed on the farm, and which is useful to all everywhere. The young women take sewing during the first year, and a certain amount of cooking practice. The utility of this needs no argument. After the first year there are differences in the industrial requirements corresponding to differences in the several courses of study. In the domestic science course the various lines of household art constitute almost the entire industrial work, floriculture being given one term and another being open to choice. In the mechanical engineering course shop work in one or another of its various kinds is required every term. In the agriculture course the industrials include practical instruction in the fields, orchards, gardens, and diary, and in feeding. The science course offers more latitude in choice of industrials after the second year. Young women may take sewing, cooking, printing, floriculture, or music. Young men may have wood work, iron work, dairying, farming, gardening, fruit-growing, or printing. The availability of these industrials depends somewhat on the season in some cases, so that not all are open each term. In addition to the above, a limited number of students are allowed typewriting as the industrial, upon recommendation of the head of a department having a machine.

The labor of students during assigned industrial time is not paid for, as its object is educational, and the student receives full value in the training afforded. In all the instruction in industrial lines special attention is given to making the courses systematic and progress-

ive. Students desiring to give extra attention to such work are allowed every opportunity that the departments can afford. Many students acquire sufficient proficiency to be able to turn their skill to a financial advantage during the later terms of their courses, and all who apply themselves with any diligence obtain a training that cannot fail to be of great benefit to them in after-life. The work of the several industrials will be found described in detail under the individual headings.

Extended Course.

Considering the entrance requirements of the institution, the four years' course of study is brief. Where practicable, students are advised to extend their course to five years. For students desiring to do this, additional work will be arranged in departments in which they may desire to specialize. Work done in the extended course may receive special mention on the diploma and be counted against requirements for the second degree.

Special Courses.

Persons of suitable age or advancement, who desire to pursue such branches of study as are most directly related to agriculture or other industries, may select such studies under the advice of the Faculty.

Postgraduate Courses.

Arrangements can be made for advanced study in the several departments at any time, and outlines of courses will be furnished on application. The electives of the extended course are open to graduates, and special opportunities will be given for investigation and research. Every facility for advancement in the several arts taught at the College will be afforded such students, though they are not required to pursue industrial training while in these courses.

Degrees.

The degree of bachelor of science is conferred upon students who complete the full course of four years and sustain all the examinations. This degree entitles the holder to credit for studies pursued in any application for state teachers' certificate. (See Laws of 1893.)

Students who extend the course one full year will receive mention on the diploma of special proficiency in those lines of study which they have pursued as an elective for not less than three terms.

The degree of master of science is conferred in course upon graduates who comply with the following conditions:

1. Upon candidates resident at least one year, the degree may be conferred at the end of a two-years postgraduate course; upon non-

resident candidates, the degree may be conferred at the end of a three-years postgraduate course; upon candidates who have taken a five-years Extended Course or its equivalent, it may be conferred at the end of a one-year postgraduate course. These courses must be outlined by, or be acceptable to, the Faculty.

2. Each candidate shall furnish evidence satisfactory to the Faculty of proficiency in one of the following arts: Agriculture, horticulture, engineering, architecture, designing, household economics; and in a science or group of sciences related thereto. Either a science or an art may constitute the student's major study; in either case his studies are expected to bear upon the distinctive work of the institution.

3. Each candidate must present for consideration by the Faculty a satisfactory thesis, involving original research in the line of his major study, and shall deposit a perfect copy in the College library.

4. Application to the Faculty for sanction of the lines of study and research should be made as early as the 1st day of November.

5. The subject of the thesis must be settled upon as soon as the 1st day of January preceding the commencement at which the degree is expected.

In a resident postgraduate course of study, as provided for by rule 1, the work required shall be the equivalent of that necessary to pursue three full studies, the time in the aggregate to be divided approximately into three equivalents, two to the major and one to the minor study.

Outlines of direction for study and research in various arts and sciences, with special adaptation to the wants and opportunities of individual applicants, will be furnished, at request, to all graduates; and professors in charge will gladly aid by correspondence in any researches undertaken.

The degree of master of science may be conferred upon the graduates of other colleges of like grade with our own, provided the applicant shall first satisfy the Faculty of his proficiency in the industrial studies distinctive of this institution, on the following conditions:

1. The applicant for the master's degree must be a graduate of at least three years' standing, and a resident of Kansas.

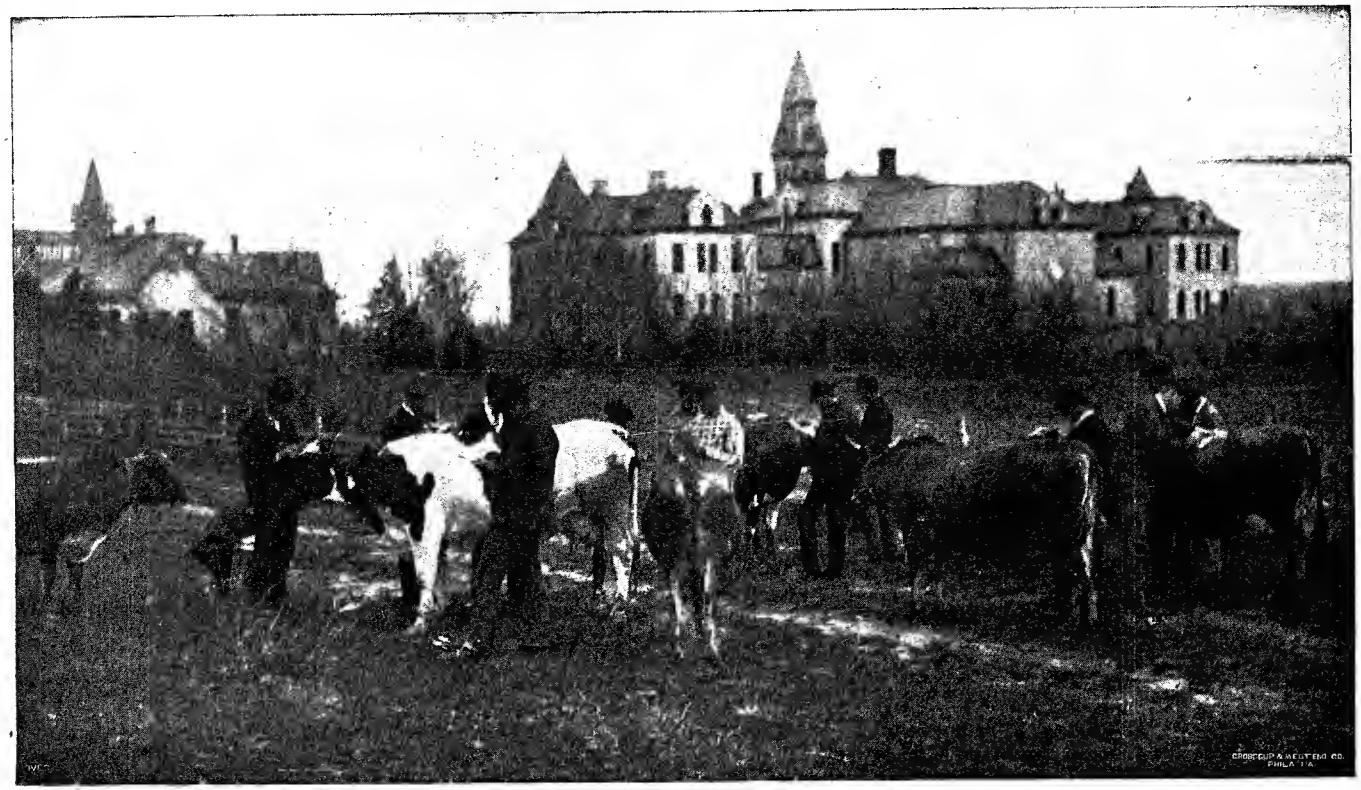
2. His postgraduate study shall have been in line with that required of graduates of this College, as published in our catalogue.

3. He must make application for the degree on or before the 1st day of January preceding the granting of the same. The application must be accompained with a statement of his course of study, the

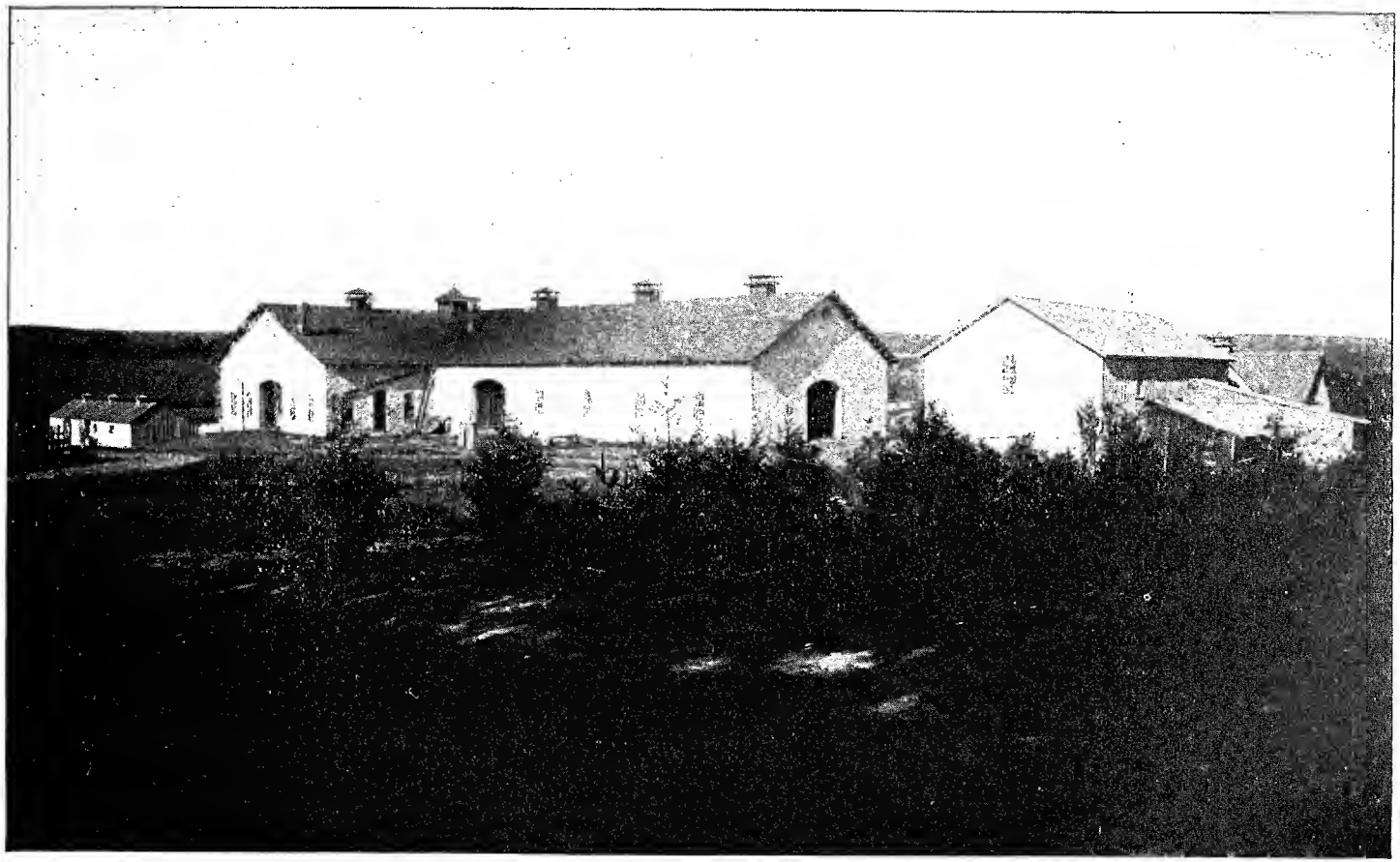
work upon which the claim for the degree is based, and the subject selected for his thesis.

4. By April 1, an abstract of the thesis must be submitted to the Faculty.

5. Before May 15, the applicant shall present himself for examination. The examination shall be thorough and extensive, and shall be conducted by a special committee of the Faculty.



STUDENTS JUDGING THE DAIRY CATTLE.



BARN AND SHEDS.

Outline of Instruction.

THE AGRICULTURE COURSE.—FOUR YEARS.

The leading feature of the four-years agricultural course is the training offered in methods of farm production which will give greatest cash returns. With money-making as an object, instruction is given in tillage, crop production, stock feeding and breeding, dairying, farm management, orcharding, small-fruit culture, and gardening. Insect life is considered in its relations to the farm, orchard, and garden, including a study of beneficial and injurious insects, with practical methods of combating the latter; and the laws of disease and health are studied, with the causes of the diseases of farm animals and methods of avoiding and combating them. Work is required on the farm and in the orchards and gardens which will familiarize the student with the best method of conducting operations in these lines; and taken with this work is a study of the results secured by the College in crop production, fruit-raising, gardening, and feeding for beef, milk, and pork. Three terms of work are given in the carpenter and blacksmith shops, that the student may learn to handle tools and be able to make the common repairs needed on the farm.

Closely connected with the money-making branches of agriculture are the sciences upon whose laws successful farm practices are based. Bacteriology is taught, that the student may understand the conditions necessary for promoting the growth of bacteria which add to the fertility of the soil and those which improve the quality of dairy products; and the conditions necessary to prevent the growth of bacteria which exhaust the soil, cause losses in manures, injure dairy products, and bring disease. The laws of plant growth are taught in botany, that the farmer may through their aid grow larger and better crops. An understanding of the laws of physics enables the farmer to store moisture and to reduce loss of water from the soil by evaporation, so that he can produce crops in dry years. A knowledge of chemistry applied to farm work secures richer soil, better yields, cheaper and greater gains in feeding, and better quality of farm products. The fertility of our new lands has been produced by forces which have been at work for countless ages. A knowledge of the workings of these forces, as taught in geology, helps the farmer to save the fertility of his fields until used for crops and to render available the immense food stores locked up in the soil.

A farmer should be an influential citizen as well as a skilful producer. For this reason, in the agricultural course instruction is given in literature and language, political and economic science, oratory, mathematics, drawing, and music. Such training enables the farmer to take part and become an influential factor in social and public work. Young men securing an education such as is afforded in this course do not leave the farm, but become enthusiastic and successful workers, competent either to manage farms of their own or to superintend for others.

We have frequent calls for farm superintendents, farm foremen, herdsmen, creamery managers, managers of fruit farms, superintendents of orchards and nurseries, foremen of greenhouses, and landscape-gardeners. These positions offer good positions to competent young men at the beginning of the engagements, with opportunities for increased pay as fast as earning ability increases. The young man who does not have the capital to run a farm of his own, if he is made of the right stuff, can complete our four-years course, secure a position at living wages, and work up to a salary of from $1,000 to $3,000 per year in farm work. The call for men for such positions is greater than the supply.

Agriculture.

1. *Shop.* First year. The shop work for the students of this course is arranged with special reference to the needs of the farmer. Elementary woodwork is given in joinery and simple problems of construction. Facility in the use of tools having been obtained, students advance to general woodwork and carpentry. As far as possible, practical work is given, that the agricultural students may learn how to do the building required on the farm.

Blacksmithing begins with simple forging and welding, and leads into the forging and construction of singletree clips, wagon ironware, clevices, horseshoes, etc. Advanced work in blacksmithing is given, and includes the sharpening and tempering of tools, plowshares, harrow teeth, etc. An especial effort is made to have the course in blacksmithing as thorough and complete as possible, and to give the agricultural students more than ordinary skill in the forging of iron and steel.

Foundry work is given to those desiring it, but agricultural students are not urged to take work in this department. Special instruction is given in boiler- and engine-room, in the firing of boilers, care and running of engines, pumps, etc. In all the shop work for the agricultural students, the aim is to teach not only the proper *methods* of making the repairs so frequently needed on the farm but also to give the student that manual skill and dexterity which will enable him to actually *make* these repairs.

2. *First Principles of Agriculture.* First year, winter term. Treats of soils, their contents, texture, moisture, tillage, and enrichment; the farm plant, its office, propagation, growth, and care; the animal, its life, feed, and management. Five hours per week. Text-book, Bailey's Principles of Agriculture. Lectures.

3. *Dairying.* Second year, winter term. Milk—its secretion, nature, and composition; cause and conditions influencing the quality and quantity of milk; handling of milk for the market and for butter-making; creaming of milk by gravity methods and by the separator; cream ripening; making and marketing butter. Five hours per week. Text-book: Wing's Milk and its Products. Lectures.

4. *Industrial.* Second year, winter term. Class work will be supplemented by work in the dairy room, where students will be given practice in running the hand separator, ripening and churning cream, washing, salting, working, printing and packing butter, and care of dairy utensils and machines; analyzing by the Babcock method, milk, cream, skim-milk, and buttermilk.

5. *Tillage and Fertility.* Second year, spring term. The management of the soil for maintaining and increasing its productivity, with special study of conservation of moisture. Includes a study of the nature, functions, texture and washing of soils, with the amount and availability of plant-food in soils; practical methods of rendering more plant-food available; plows and plowing, and other implements and methods of tillage; the conservation of soil moisture; farm manures; nitrification; clover crops, fallows, and improvement of soils by clover and alfalfa; rotations; selection of seed; methods of planting; treatment after planting and harvesting of grain, grass, root and forage crops; and special treatment. Five hours per week. Text-books: Robert's Fertility of the Land, and King's The Soil. Lectures.

6. *Stock Feeding.* Third year, winter term, half study; spring term, full study. The properties of feed stuffs, and their combination to secure good results at least cost with products having the desired qualities; effect of foods on quality of products; preparation of feeds; methods of feeding; care and shelter of farm animals; construction of farm buildings and appliances to secure best returns from feed and for saving labor; study of experimental work in stock feeding. Five hours per week. Text-book: Henry's Feeds and Feeding. Lectures.

7. *Agricultural Mechanics.* Third year, spring term. Advanced instruction in the machine-shop is given the agricultural students, and is supplemented by lectures on the care and use of agricultural machinery. The exact character of the work given is somewhat optional with the students. Those preferring can take more advanced

boiler and engine practice, while others work in the machine-shop, bolt-making, grinding, sharpening, screw-cutting, and the repairing of agricultural machinery, under the direction of skilled instructors. Special attention will be given to farm hydraulics, irrigation, drainage, earthen dams, and reservoirs.

8. *Industrial.* Fourth year, fall term. The industrial is in feed and feeding work; the students doing the work in these lines according to the best methods adapted to Kansas conditions.

9. *Breeds and Breeding.* Third year, spring term. History and characteristics of the breeds of live stock, and their adaptability to Kansas conditions; laws of heredity, atavism; law of correlation; variation; conditions affecting fecundity; in-and-in breeding and cross-breeding; form as an index to qualities; selection and judging of live stock; compiling pedigrees. Five hours per week. Textbook: Miles's Stock Breeding. Lectures.

10. *Agricultural Economics.* Fourth year, spring term. Selection, equipment and management of the farm; farm labor, buildings, and machinery; field and feeding experiments; study of the markets for farm products; agricultural history. Five hours per week. Lectures. Library references.

MEANS OF ILLUSTRATION.

Two hundred and eighty acres of land for farm purposes, with fields in alfalfa, grasses, grains, and forage crops, illustrating the best methods of field work.

A barn, fifty by seventy-five feet, arranged for experimental purposes, connected with a general-purpose barn, forty-eight by ninety-six feet. The barns are filled with improved machinery for shelling, grinding, thrashing, cleaning and grading grain, and for cutting for the silo. Three thousand dollars was appropriated by the last legislature for the purchase of a herd and for providing shelter for it. With this appropriation a model dairy barn for 100 cows will be built during the summer of 1899 and cows purchased to fill it.

We plan during the winter of 1899–1900 to fatten for the market 800 head of hogs, with the object of determining the best method of fattening hogs with our drought-resisting crops. Students in the agricultural classes will be required to make a close study of this work throughout its progress. Such an opportunity on so large a scale has not been offered before at any college in the world.

Farm implements for all kinds of Kansas farm work.

The last legislature has appropriated $25,000 for a dairy building and $6,000 for dairy equipment. This building will be completed and equipped ready for use during the school year of 1899–1900, and will contain rooms and equipment for thorough work in creamery

butter-making, factory cheese-making, and private dairying. It will also contain large classrooms for general agricultural work, an agricultural library, and an agricultural museum.

EXPERIMENT STATION.

The United States government appropriates $15,000 each year to this College for agricultural experiments. The work now in progress includes experiments in fattening hogs, feeding and handling dairy cows and calves, and the production of dairy products; field experiments in seed breeding and conservation of moisture; investigations in orchard work and the raising of small fruits and garden products. A special study is now being made of the most profitable methods of storing and marketing fruit and vegetables.

Remedies for blackleg and swine-plague or hog-cholera are being constantly tested. The chemist is investigating sugar-beets, soil moisture, and methods of increasing the protein in crops. The botanist is giving special attention to Kansas weeds and grasses, and to seed breeding.

Each student has full opportunities to study this experimental work and many students help conduct the experiments. This study and work is a most valuable addition to the regular class work.

Botany.

1. *Elementary Botany.* First year, fall term, all courses. The classroom work is supplemented by daily field work, which in the main runs parallel with the text-book used. The aim in the field work is to teach the student how to observe, and how to draw conclusions from his observations. The following are a few of the subjects studied: Germination of corn, bean or other common seed; opening of buds; falling of leaves; various fruits and their adaptations for dissemination; pollination and adaptations for cross-fertilization. These notes and observations, together with the necessary drawings, are submitted from time to time for examination and criticism. In addition to this, each student prepares a herbarium of not less than fifty species of native plants. These are named by the aid of Gray's Manual of Botany, sixth edition, or by a key to the genera of Manhattan plants, prepared by the professor of botany. The students are required to provide themselves with pocket lenses, under the direction of the professor in charge. Text-book, Bergen's Elements of Botany.

2. *Physiological Botany.* Fourth year, winter term, all courses except the engineering. During this term the minute structure of plants is studied in the laboratory by the aid of the compound microscope. The anatomy of the plant is studied chiefly for the purpose of showing how the organs perform their various functions. At the

same time the student is drilled in correct observation, accurate statements of results, and the illustration by drawings. Each student has the use of a compound microscope, with the necessary tools and reagents. The text-book used is Barnes's Plant Life. Each student is required to prepare a herbarium of not less than twenty-five species of twigs. These are named by the aid of a pamphlet prepared by the professor of botany. A good herbarium and a large greenhouse are drawn upon for material for study.

3. *Plant Diseases and Plant Breeding.* Fourth year, spring term, agriculture course. The first half of the term will include a study of the common injurious fungi that affect cultivated plants. Each student is required to prepare a herbarium of parasitic fungi of not less than twenty-five specimens. For the purpose of identifying his collection the student may use the laboratory and library of the department at such times as are best suited to his convenience. The second half of the term will be devoted to the subject of plant breeding. The laws of heredity and variation will be studied, and their application to methods of plant improvement by crossing and selection will be presented. The library of the botanical department of the Experiment Station is rich in works upon the subject, and will be at the disposal of this class. The extended series of experiments now being carried on by the Experiment Station will be used to illustrate this important branch. Text-book, Barnes's Plant Life.

EXTENDED COURSE.

4. *Morphology and Ecology.* Fall term, three days per week. The former includes a study of the organs of plants, their modifications to perform various functions, and a comparison of these organs in plants of various degrees of development. The latter is that part of vegetable physiology which treats of plants as organisms, and would include such topics as germination, pollination, insectivorous plants, symbiosis, and adaptation to climate. The second half of the term will be devoted to the subject of ecological plant geography, which will include a study of plant communities as a result of adaptation to environment.

5. *Systematic Botany.* Spring term, three days per week. A study is made of the natural orders of phenogamous plants, their characters and relationships.

6. *Vegetable Physiology.* Fall term, two days per week. This deals with the chemical and physical problems presented in living plants, such as the absorption of food, elaboration of organic material, transfer of food, action of light. This course should be preceded by the required physics and fourth-year botany. In the spring term a

course of experimental physiology will be offered, consisting of laboratory experiments illustrating the preceding course.

7. *Cryptogamic Botany.* Winter term. During this term the principal types of fungi, algæ, mosses and ferns are studied. This course should be preceded by the required botany of the fourth year.

8. *Economic Botany.* Spring term, two days per week. A study of the economic products of the vegetable kingdom, their origin, history, and uses. This should be preceded by systematic botany.

9. *Plant Breeding.* Winter term. A series of lectures embracing the laws of evolution, their application to the production of new types of useful plants, and the technique of cross-fertilization and selection.

MEANS OF ILLUSTRATION.

A general herbarium, consisting of a large collection of plants of the United States and other countries; a Kansas herbarium, containing specimens illustrating the distribution and variation of plants throughout the state; a twig herbarium, illustrating woody plants in their winter condition; and a seed herbarium, containing a representative collection of seeds and fruits—all together, the herbarium contains about 60,000 specimens; also twenty-eight compound microscopes, four dissecting microscopes, tools, reagents, etc. The department is provided with a zinc culture room, and the ordinary apparatus for bacteriological work; a dark room and apparatus for photography; microtomes and other apparatus for microtomic work; about 150 charts, illustrating all departments of botany; a botanical library of over 1,000 bound volumes and numerous pamphlets.

Chemistry.

1. *Chemistry.* Second year, fall term. A general introduction is given this term, consisting of about fifty lectures and experimental demonstrations, supplemented by both oral and written recitations. After a few weeks the periodic system of the elements is made the basis of chemical classification. Special attention is given to the non-metals and the general foundations of chemical science.

2. *Chemistry of the Metals.* Second year, winter term, twice a week. This course not only serves to elucidate chemical principles, but it is the basis of instruction in metallurgical processes and industrial applications of the metals.

3. *Elementary Laboratory Work.* Second year, fall and winter terms. A course of laboratory work one afternoon per week (two consecutive hours) is required of all students pursuing the study of elementary inorganic chemistry.

4. *Organic Chemistry.* Second year, winter term, three times a week. In this course special emphasis is given to the fatty compounds and the study of general reactions, as a separate elective course on aromatic compounds follows. Prerequisite: Course 1.

5. *Analytical Chemistry.* Second year, spring term. This course is designed not only to impart the principles and practices of qualitative chemical analysis, but to give opportunity for extending the student's knowledge of inorganic chemistry. It regularly follows course 2, but may be taken at the same time with that course, and requires two and one-half hours per week.

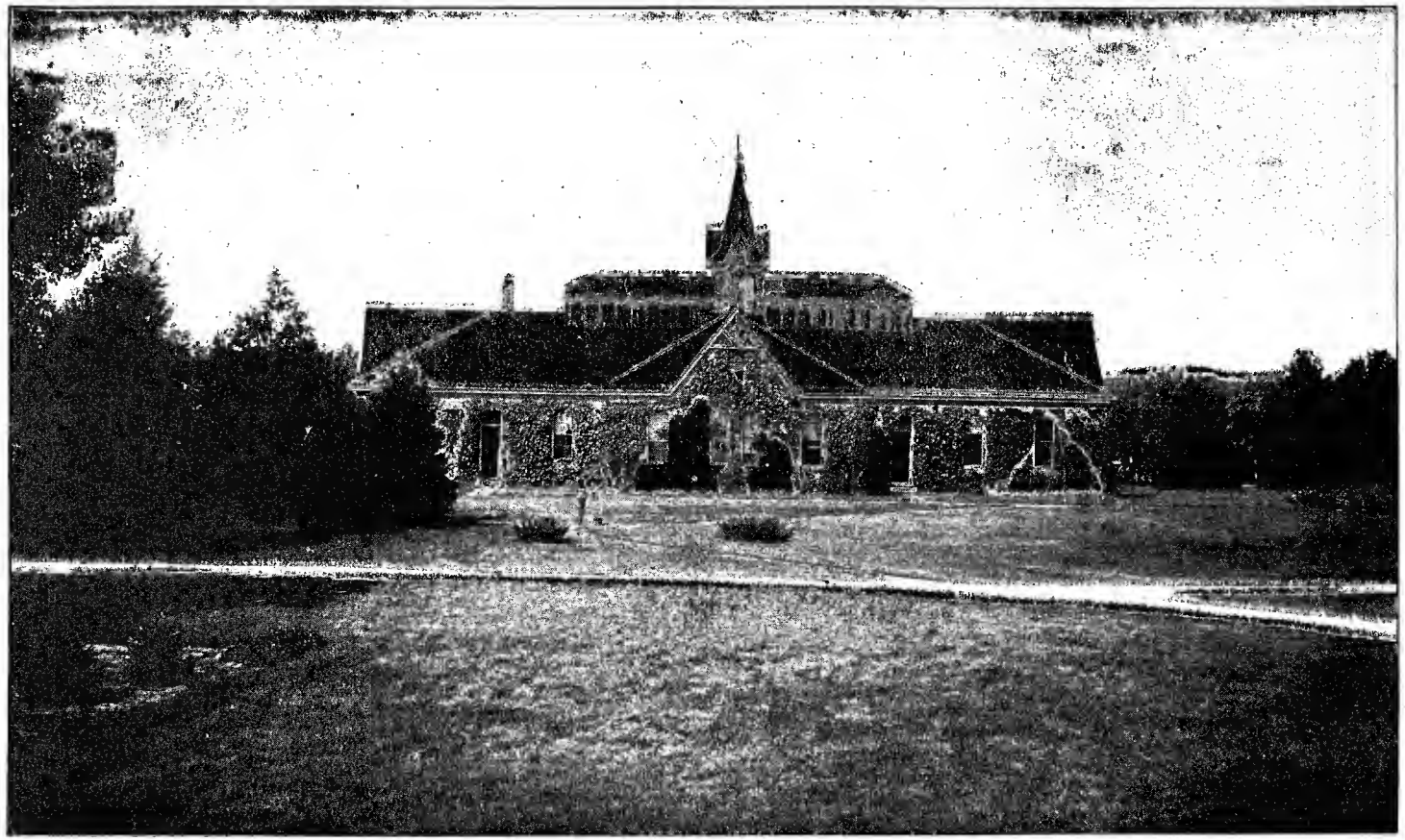
6. *Laboratory Work in Analytical Chemistry.* This course must be taken with course 5, and occupies seven and one-half hours per week. The exercises are so arranged as to pass from the simple to the more difficult, and at the same time to facilitate comparative study of the various basic and acid radicals. Opportunity is afforded for advanced work to such students as desire it.

7. *Agricultural Chemistry and Soil Physics.* Third year, fall term. A series of lectures is given on the formation and characteristics of different types of soil; the soil requirements of a variety of crops; the modes of soil enrichment and amelioration, and the general relation of crops to earth, air, and water. Both chemical and physical relations are considered throughout this course, but especial attention is given to the study of soil moisture from the physical point of view. The lectures are illustrated by experiments. Courses 4 and 5 must precede this course.

8. *Chemistry of Foods.* Third year, winter term. This course is given by lectures during each half of the term, and embodies a presentation of the chemical composition of foods, the changes which they undergo in cooking and digestion, and their adaptation to the various needs of the animal body. Course 4 must be finished before undertaking this work.

9. *Advanced Chemistry of Foods.* This course may be taken by advanced or postgraduate students. It consists in study of the literature treating of food and nutrition from a chemical standpoint, and is accompanied by laboratory work. The latter feature may be enlarged to almost any extent that the student may desire. The higher lines of work in this course require some previous training in quantitative analysis.

10. *Quantitative Analysis.* May be taken up at any time after the completion of courses 5 and 6. After the necessary preliminary training, the student may give special attention to any line of quantitative analysis, such as that of foods and fodders, soils and fertilizers,



CHEMICAL LABORATORY.

DOMESTIC SCIENCE HALL.

ores, water, gases, etc. The investigation of special chemical questions is encouraged.

11. *Advanced Inorganic Chemistry.* In the spring term, lectures and laboratory work in this subject are offered as an elective to fourth-year students and postgraduates. The course will include assigned reading of a text-book in inorganic chemistry. Prerequisites: Courses 1, 2, and 3.

12. *Aromatic Compounds.* This course (offered in the fall term) is supplementary to course 4, and is an elective for fourth-years and postgraduates. Prerequisite: Course 4.

13. *Advanced Laboratory Work in Pure Chemistry.* Advanced laboratory courses, supplementary to the advanced classroom work, will be offered in any term to properly qualified students. Students undertaking this line of work must spend at least twenty or thirty hours of work under the direction of the professor in charge in order to receive credit.

14. *Historical and Theoretical Chemistry.* This course (offered in any term when three or more students apply for it) will be adapted to the convenience of instructor and students concerned. Prerequisites: Courses 10 and 12.

MEANS OF ILLUSTRATION.

Laboratory tables, with all the necessary equipment for eighty students in qualitative analysis and eight in quantitative analysis; facilities for assaying; illustrative apparatus, both general and special; a well-selected mineralogical collection, representing all but the rarest species, in various forms, colors, and structures; a good collection of rocks; a set of Stassfurt minerals, and the fertilizers prepared from them.

Geology and Mineralogy.

1. *Geology.* This course is given regularly to third-year students either in the winter or spring term (according to course of study) More attention is given to the physical and chemical aspects of geological study than to the biological and historical sides of the subject. The aim is to teach the students something of the relations of geology to other sciences and of its importance and scope, rather than to enter into its details and technicalities. Especial emphasis is given to the relation between this science and physical geography.

2. *Crystallography.* An elective course in crystallography is offered by the professor of pure chemistry whenever a sufficient number of students from the higher college classes apply for it.

3. *Blowpipe Analysis and Determinative Mineralogy.* An elective course offered by the professor of applied chemistry. Prerequisite: Chemistry 5.

Domestic Science.

The purpose of the course of domestic science is to afford training in the special subjects which must be considered in the daily administration of every home. The applications of modern science to everyday life are manifold, and nowhere more important than in the home, the center of all normal life. The sciences which underlie the successful and intelligent conduct of the home, whether it be small or large, on its material side, are, above all others, physiology, chemistry, and hygiene, and therefore any well arranged course of domestic science must be based upon a substantial foundation of these subjects. Moreover, as this cannot be well understood or well applied without the elements of physics, biology, etc., these branches also must receive special attention in the course of study together with other subjects, as provided in the college curriculum.

1. *Hygiene.* First year, fall term. The course of lectures in elementary hygiene is given to both young men and young women. The instruction of the young women is to be under the direction of the professor of domestic science. The general principles of wholesome living and the general care of the human body will be the leading subjects considered.

In the following courses the work is arranged on educational as well as technical lines, and offers both theoretical and practical instruction, and is given in a well equipped domestic science laboratory.

The student is required to keep a set of note-books, namely: A permanent note-book, a daily class record of class and personal work, and a recipe book. This plan enables the student to keep a clear, systematic and concise record of every detail and objective point in the work. The lectures and practical work in cooking are presented in four courses, and two special professional courses on the following lines:

2. *Household Economics.* First year, winter term. Lectures, with weekly laboratory practice. The objective points, neatness, order, economy, and accuracy, will be observed. The subject of cookery, its origin, purpose, etc., table of measurements and weights, directions in measuring, definitions pertaining to manipulations, methods of cookery, etc., the general care of utensils, the kitchen and its adjoining apartments, the general sanitation of the home, general household management and home ethics constitute the leading subjects of practice and lecture work.

3. *Chemistry of Cookery.* Third year, fall term. Text-books, Mathieu Williams's Chemistry of Cookery, and Ellen H. Richards's Chemistry of Cooking and Cleaning.

4. *Domestic Science.* Lectures, recitations and laboratory instruction are combined throughout the year.

Third year, fall term. A course in fruit cookery; plain household cookery; lectures upon the food principles; classification, elementary composition of the human body; study of fuels, heat and its effect; cooking temperatures, etc.

Third year, winter term. Plain household cookery continued; advanced household cookery the latter half of the term.

Third year, spring term. Advanced household cookery the first half of the term; high-class cookery the second half of the term; standard menus, and general lectures in the science of nutrition, with parallel readings are required. Instruction in general serving and entertaining is given.

5. *Therapeutic Cookery.* Fourth year, fall term. Special cookery for the sick and its application to the home, and for hospital nurses in training.

6. *Emergency Lectures and Special Physiology.* Fourth year, winter term. First aids to the injured; lectures on home nursing.

7. *Demonstrations.* Fourth year, spring term. Lecture work in scientific and practical cookery. Each student is required to give a demonstration lecture in cooking before the class, and give approved recipes, observing all the educational, scientific, technical and practical points involved in each method demonstrated. The student lecturer may select one assistant from the class, to assist in the general details of the work. In connection with this lecture work, each student is required to give a complete lesson outline and conduct one class in practical work according to the best approved methods in laboratory practice. The two professional courses are designed to meet the demand for more thoroughly and broadly trained young women who go out as graduates. The work of the fourth year is planned so as to give the professional training that a complete course of domestic science should involve.

Domestic Art.

All young women take sewing the first year, and in the domestic science course dressmaking is required in the winter term of the second year.

1. *Sewing—Industrial Work.* The course of work has been carefully graded, with the idea of developing habits of accuracy and self-reliance. Each pupil is required to keep a note-book, in which she records a description of the work accomplished. A written examination is held at the end of each term. During the first term the pupil makes a book of models, covering the full course in hand sewing, and consisting of basting, hemming, gathering, darning, patching, etc.

Second term. Machine practice; drafting, cutting and making underskirt and drawers.

Third term. Drafting, fitting and making dress without lining.

Fourth term. Cutting and making corset cover and night-dress.

2. *Dressmaking.* Five hours a week will be devoted to classroom work. Pupils will be taught to adapt and use patterns taken from pattern sheets; also the use of a dress-cutting system. Five hours a week will be devoted to industrial work. Each pupil will be required to furnish the material and draft, cut and make a woolen dress for herself.

Drawing, Descriptive Geometry, and Architecture.

1. *Free-hand Drawing.* First year, fall term. The course in free-hand drawing comprises work in surface designing and ten lessons in sketching from the object. The surface designing is taught in the first year. The student begins with forms involving the straight line and the arc. He is led to note the effect of geometrical arrangement, repetition, alternation, symmetry, proportion, harmony, and contrast. Later, the conventional ornament is taken up, and more subtle curvatures and complex forms are introduced. Toward the close of the term, natural forms and historic ornament in the flat are studied.

2. *Geometrical Drawing.* All first-year students are given one term's work in geometrical drawing. This work comprises the construction of perpendiculars, parallels, angles, and polygons; the circle and its secant lines; the ovoid, the oval, and the spiral; various geometrical designs and elementary architectural forms; the use of drawing-board and T square, and the conventional representation of building materials.

3. *Object Drawing.* First year, spring term. Drawing from the object is taken up. Simple geometrical models and objects are placed before the class, their apparent forms are discussed, and outline sketches are made from different stand points.

4. *Orthographic Projection.* The engineering students of the second year are given three full terms of orthographic projection, comprising the projection, section, development, interpenetration, shade and shadow of the Euclidian solid. Instruction is also given in the manipulation of the blue- and black-printing processes, and in drafting from the model—a complete eight-horse-power engine. Accuracy of measurement and neatness of execution are required in all work. The third-year students of the general course are given two half terms of projection drawing. The character of this work is the same as that of the corresponding term of the engineering course.

5. *Axonometric Projection.* In the third year of the engineering course axonometric projection is taken up. The study comprises a complete exposition of the various systems of representing forms of three dimensions. The practical advantages of each are pointed out by illustrative problems, especially with regard to isometric projection, a system of graphic representation which is gradually forcing its way into the workshop. Various exercises in line and brush shading are connected with this work.

6. *Descriptive Geometry.* This study forms the graphic work of the winter term of the third year in the engineering course. It comprises the usual problems on the straight line, circle, rotation, collineation, and surfaces of revolution. Several weeks are given to the study of warped surfaces, their sections, intersections, and relations.

7. *Perspective and Sketching.* This study is taught on mathematical bases, and is intended to furnish the scientific answers for the questions which constantly confront the student of drawing from the object. It comprises the subjects of vanishing points, vanishing traces, measuring points, cylindric perspective and perspective corrections, shades and shadows in perspective.

The work in sketching is connected with the study of linear perspective in the spring of the third year. The models used are geometrical solids and objects of utility and beauty, whose forms bear close relationship to geometrical types. The students are led to recognize the facts, relations and principles involved in the apparent form of the object, to note the distribution of light, shade, shadow and reflection on the same, and deduce the general principles which the observation and comparison of these appearances are found to establish.

8. *Advanced Object Drawing.* Fourth year, spring term. Exercises in pen drawing, brush shading, use of water-colors, architectural and machine drawing, at the option of the student.

9. *Architectural Course.* The courses of study for all engineering branches must necessarily be the same with regard to all work of a preparatory or general character, but differ with regard to the professional branches. Students who intend to take architecture in place of mechanical engineering may make substitutions for work, as stated on page 40. The department of industrial art is well equipped to teach the branches named. It owns a rapidly growing collection of illustrative building material, complete sets of drawings and blue prints of most of the Kansas state buildings, a photographic camera, a dark room equipped with running water and ruby light, etc. The substantial buildings of the institution and its complete system of heating and lighting furnish additional illustrative material. Stu-

dents who intend to take this course should study landscape-gardening with the department of horticulture.

10. *Home Architecture.* Third year, fall term. The students in domestic science will be given a course of lectures on practical home building, and will be required to design and draw a set of plans, elevations and details of a small residence, with modern provisions for heating, ventilation, and drainage.

NOTE.—The College furnishes drawing-board, T square, triangles and water-colors for the graphic work done at the College, but all tools for home use, including drawing-board, T square, triangles, compasses, and protractor, must be furnished by the student.

MEANS OF ILLUSTRATION.

Models, plaster casts, patterns, charts, collection of ornamental tiles, marbles, and terra-cotta forms. One of the classrooms is provided with top light and furnished with twenty-five Dietzgen drawing-tables.

English Language and Literature.

DEPARTMENT AIMS.

1. To create and increase a taste for reading.

2. To develop a careful and discriminating judgment regarding literature and printed matter.

3. To teach by examples the meaning and uses of the various forms of literature.

4. To increase the student's stock of words by an extended experience in word analysis, dictionary use, and language history.

5. To give him actual practice in the exercise of many forms of composition, and thereby to develop facility in expressing himself.

6. To beget the historic sense while tracing the literature of the Anglo-Saxon race in its cause-and-effect relations to the great events and movements of history.

7. To lead the student to a plain in which he may see language and literature as the most complete and most permanent index to the civilization of any people in any age.

English Readings. First year, fall term. The careful study of a number of standard authors of first-class interest and easy style. As far as possible these are read and discussed in the class, after which the students write either abstracts or analyses of the pieces. They thus have the continual opportunity of rendering and hearing the best thought in the best form, and afterwards of developing their own thought and skill in an abridged reproduction. With these various objective readings the student learns to distinguish various forms and styles of literature and to note the qualities of thought and expression.

FALL-TERM CLASS READINGS.

Benjamin Franklin, Autobiography. (American Book Co., 35c.)
Nathaniel Hawthorne, Snow Image, etc. (Univ. Press Co., 20c.)
Daniel Defoe, Robinson Crusoe. (Univ. Press Co., 20c.)
Walter Scott, Lady of the Lake. (Univ. Press Co., Am. Book Co., 30c.)
Washington Irving, Sketch Book. (Univ. Press Co. 20c., Am. Book Co.)
Nathaniel Hawthorne, The Sketch Book. (Univ. Press Co., 20c.)
Bulwer-Lytton, Harold: The Last of the Saxon Kings. (Univ. Press Co., 30c.)

English Readings. First year, winter term. This is a continuation, with new authors, of the work begun in the fall term. It has the same general objects in view. Instead, however, of the written abstracts and analyses, students will devote considerable attention to the etymology of words found in the texts, taking as a guide Swinton's Word Analysis.

WINTER-TERM CLASS READINGS.

Nathaniel Hawthorne, Wonderbook. (Univ. Press Co., ——.)
Henry W. Longfellow, Evangeline. (Univ. Press Co., 20c.)
Alfred Tennyson, Princess. (Am. Book Co., 20c., Ginn & Co.)
John Ruskin, Sesame and Lilies. (——— ———.)
Ralph Waldo Emerson, American Scholar, etc. (——— ———.)
Washington Irving, Knickerbocker Stories. (Univ. Press Co., 20c.)

Theme Writing. Second year, fall term. This term is an extension and an application of the work begun in composition. With Newcomer's English Composition as a guide, the student is given a further experience in outlining and developing themes. He makes his own choice of subjects within the limits of each type of composition. Narration, description, exposition, argumentation, persuasion, reviews, letters, etc., are studied as processes, and each student writes one or more pieces of each type upon subjects of his own choice. These themes are read by their writers before the class and the members pass systematic criticism upon the words, sentences, general treatment, thought and delivery. Afterwards the themes are passed in and receive corrections (in red) from the instructor in charge.

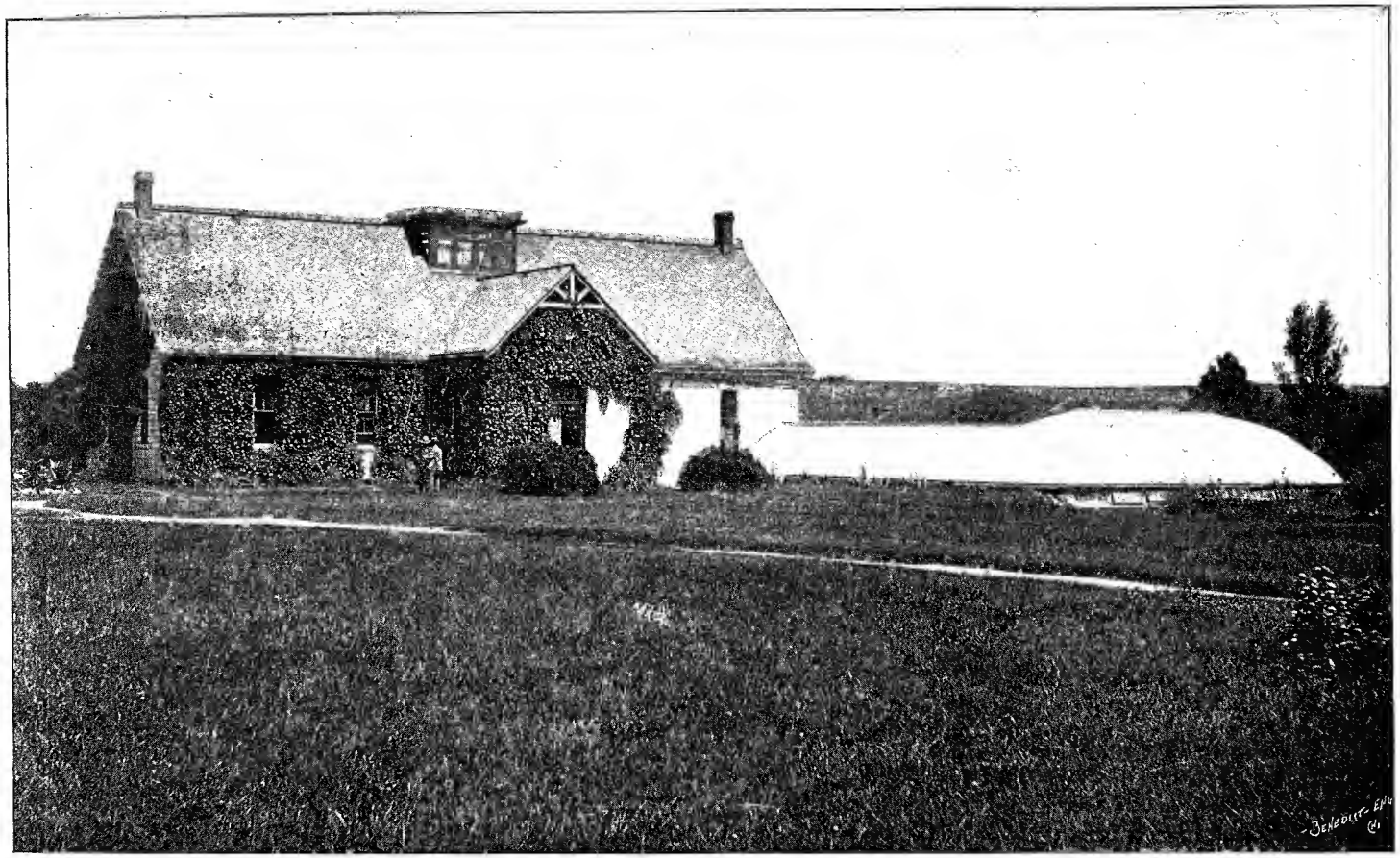
American Literature. Second year, winter term. The work here is a historic survey of American authorship from colonial times to the present. It will be conducted by lectures and readings, alternating daily. The readings will have for their end an acquaintance with the writers of the first rank. In the lectures the chronological order will be followed, and the spirit of understanding the growth will be fostered.

Rhetoric. Third year, fall term. This includes the philosophy and analysis of the principles involved in the various kinds of literary art. It covers a comparison of the ancient and modern ideas of the subject, the meaning of rhetoric as a science and as an art; the nature and differences between the many kinds of style; the elements which go to make up these; the characteristics and uses of the two great divisions—prose and poetry; the grand problem of the material and thought, or of the content of discourse of whatever sort—how to get it, how to handle it; how to limit a subject, how to expand a theme, and how to stop. The work will be partly by lectures, partly by text-book study, partly by examining examples in the standard authors, and partly by written work from the students.

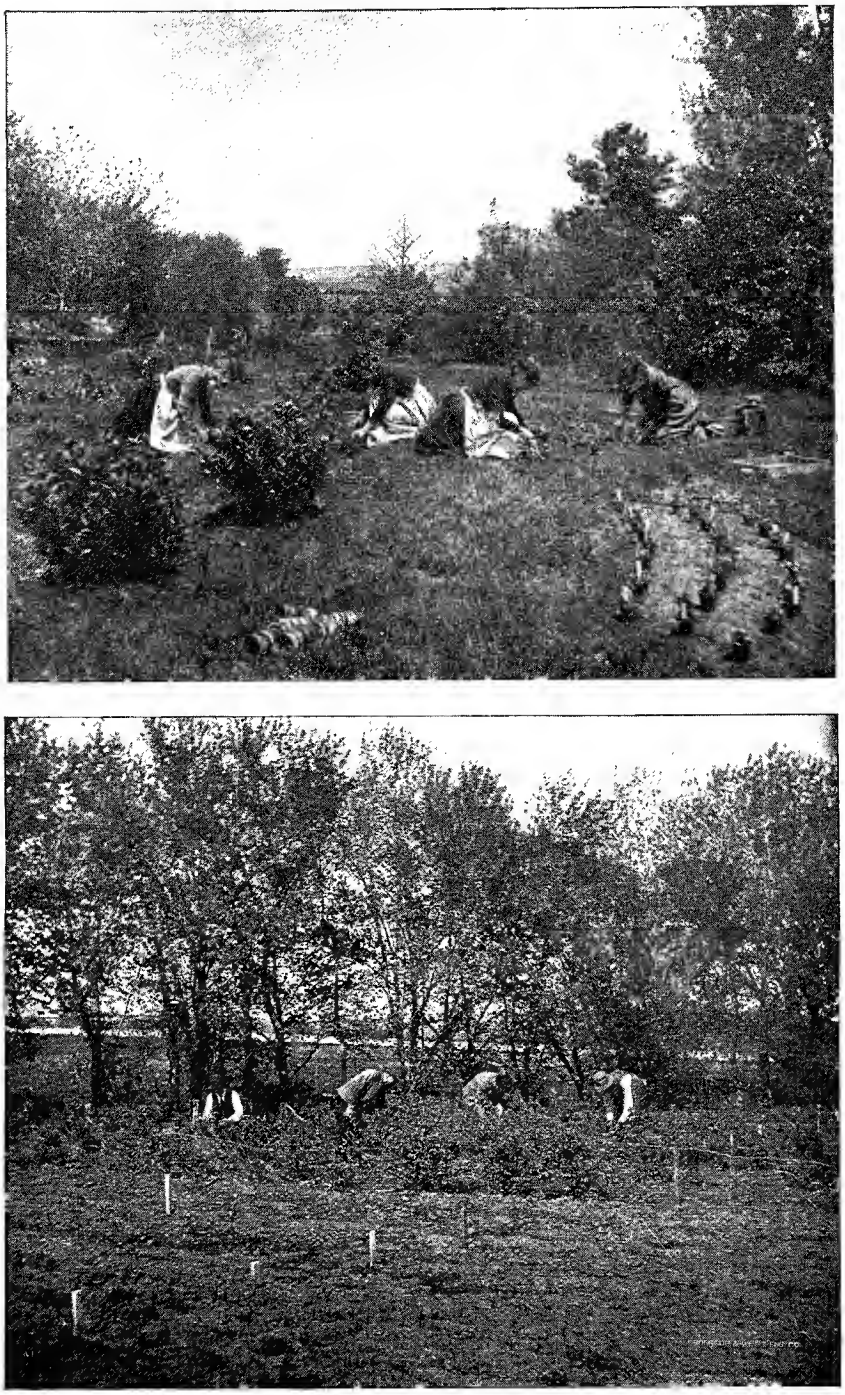
English Literature. Fourth year, winter and spring terms. The course begins with a classification of races which shows the origin and relations of the Anglo-Saxon people. Then follows an outline history of the English language. The literature of England is treated by lectures (three each week during the two terms). These begin with the earliest times and extend to the third quarter of the nineteenth century. The method pursued is to carry forward parallel accounts of the works on British soil, a passing mention of foreign works, and of the chief historical events directly or indirectly affecting the course of thought. These are given in double-page columns with dates in the margin. Literature is thus inseparably linked in the mind with the course of other human events. The reciprocal relations of cause and effect are clearly kept in mind. Language and literature are shown to be the art above all arts, and the clearest and most permanent exponent of each age or people.

In addition to this, two days in each week the class reads together and in chronological order selections from the great representative writers. As a basis, the prose collection by Garnett and the poetry collection by Syle are used. Besides these, many other works are brought in, read, and discussed. Each week during both terms all students make an extended written analysis of some important literary production. Original readings and individual opinions are encouraged as much as possible.

Especial stress is all the way laid on finding the elements of beauty and moral power in every piece read. Altogether, it is hoped that this extended excursion along the most considerable stream of the world's literature may prove an inspiration toward noble and earnest life, may show the power of language and the imperishable character of its more beautiful forms, may reveal something of the mode and meaning of social advance and civilization, and be to the student in after-life a well-spring of pleasure and profit.



HORTICULTURAL HALL AND GREENHOUSE.



STUDENTS AT WORK IN THE GARDENS.

History and Political Science.

1. *General History.* Third year, fall term. The objects of the course are to fix in the mind the main facts of history; study their meanings, relations, laws, and lessons; train the memory, reason, imagination, and sympathies; help the student to understand references in current literature; comprehend the origin and development of existing states, peoples, and institutions; and by the light of the past learn something of the future—what it may be and what it should be—the when, the why, the ought, and the how. The work consists of lectures, text-book study, reference reading, analyses, discussions, solution of problems, and original research and generalization.

2. *Nineteenth Century History.* Third year, winter term. In this course the chief nations of the world, the leading events and great movements of this richest of all the centuries are studied more fully than is possible in the preceding course. The methods employed are similar to those just named under general history; but still more attention is given to the philosophy of history and its ethical aspects, the drift of our time, and the possibilities of the future; and a wider use of the library is substituted for text-book study—reference reading in such books as Buckle's History of Civilization in England, Carlyle's French Revolution, Sloan's Napoleon, the works of Green, Guizot, McMaster, Mackenzie, etc., being required. An effort is also made to create a strong interest in the lives of Lincoln, Gladstone, Bismarck, Garibaldi, and other great men; in the works of Darwin, Spencer, Laplace, and other scientists and philosophers; and in the writings of Lowell, Emerson, Hugo, Ruskin, Tennyson, Mazzini, Goethe, Tolstoi, Sienkiewicz, etc.—an interest that may lead the students to do much valuable reading in history, biography, science, philosophy, and general literature; one of the main ideas of the work being that if a youth be given an appetite for knowledge and trained a little in methods of acquiring it he will make the world his university and every library his text-book.

3. *Civics.* Third year, winter term. The science of citizenship; law and government, municipal, state, and national; their origin and development; what they are now and what they ought to be. Lectures, with text-book work, analyses, and discussions. The students choose selectmen, governor, supreme court, etc., hold town meetings, organize as a state house of representatives, and afterwards as a national house of representatives; bills for better roads, proportional representation, income tax, electric ballot, initiative and other live issues are introduced, discussed, and acted on, as in Topeka and Wash-

ington; the constitutionality of enactments is tried before the supreme court; parliamentary usage is followed as far as practicable.

4. *Principles of Economics.* Third year, spring term. Introduction to the general subject, with elaboration of certain aspects. Pains are taken to compare conflicting views and point out sources of information on all sides of vexed questions. Lectures and library reading. Each student keeps a note-book and reading record.

5. *History of Industries.* Fourth year, fall term. The development of science and industry is traced in a course of lectures. Textbook, Wright's Industrial Evolution of the United States.

Horticulture and Entomology.

1. *Horticulture.* Second year, fall term. The lectures of this term present the principles of the art, introducing the facts underlying methods of propagation, nursery, orchard and garden treatment; the handling, storing and preservation of fruits; with a brief discussion of the origin and characteristics of garden varieties.

Third year. Spring term, the work of this term is devoted to an examination of the operations of general gardening, with special attention to seasonable practice, including the application of fungicides and insecticides, and a more detailed study of varieties with reference to local conditions.

Fourth year, winter term. The principles of construction and management of various glass horticultural structures, specific methods of propagation, the forcing of flowering and vegetable plants, and other work of the season are among the topics of the lectures of this term. Electives are offered in the fourth year to classes in ornamental gardening, pomology, and the principles of forestry.

2. *Floriculture.* Third year, winter term. This subject, open to young women in the domestic science course, includes general greenhouse management, window gardening, the growing of flowering plants in the open air, the destruction of plant pests, etc., practice alternating with lectures on these topics.

3. *Entomology.* Second year, spring term. In the elementary work of this term, the intention is to give the student a basis for the intelligent appreciation of the important relations of the science to agriculture and horticulture. A brief view of structural types precedes an outline of insect classification, and a special study of the economic bearings of the subjects completes the work. Illustrative material is furnished from the individual collections of the students and from the College museum. Charts, dissections and drawings from nature are used to illustrate points of value in classification. The pocket lens

used in botany is required in this study. Text-book, Comstock's Manual for the Study of Insects, abridged.

Fourth year. *Elective.* Review of the general subject, with the text-book, Comstock's Manual, extended. Entomological methods, including field work in observation and collection, laboratory work in preparation, dissection and preservation, and in the study of life-histories by the aid of the vivarium. The independent and critical study of systematic entomology, the work in which may be restricted, when desired, to groups of special agricultural importance. Economic entomology, so far as relates to the injurious insects of field and garden, with a special study of method of repression.

INDUSTRIAL WORK.

In this work students are given practical instruction in the planting and arrangement of nursery stock, digging and planting of trees, pruning and training of trees and vines, transplanting and management of small fruits, use of hotbeds and cold-frames, and general vegetable gardening. Special students during the winter term receive more advanced instruction in the various methods of propagation, in grafting room and green-houses. Students who show special proficiency in horticulture are often employed as foremen. An industrial course in floriculture is open to young women.

MEANS OF ILLUSTRATION.

Orchards containing 100 varieties of apples, 50 of peaches, 10 of pears, 30 of plums, 40 of cherries, and 15 of apricots.

Small-fruit garden, with 200 varieties of small fruits, including blackberries, raspberries, gooseberries, currants, and strawberries; and vineyard, with 175 varieties of grapes.

Forest plantation of 12 acres, containing 20 varieties, of from 1 to 25 years' growth.

Ornamental grounds set with a variety of evergreens and deciduous trees. Sample rows, containing about 150 varieties of ornamental and useful shrubs and trees, labeled.

Vegetable garden with hotbeds and cold-frames, and experimental beds. Practice rows for students' budding, grafting, cultivating, and pruning.

A well-planted and furnished greenhouse of three rooms, stocked with a fine collection of native and exotic plants; three propagating pits, 12x70 feet, for experimental work, and three others of the same size with commodious workroom adjoining, and equipped with the best improvements for the use of the young women in the practice of floriculture.

A tool room containing 50 individual cases of horticultural tools,

besides tools and implements for general use, and pumps and apparatus for spraying with fungicides and insecticides.

Museum, containing a collection of woods from American forests, seeds of many varieties of vegetables, a herbarium of cultivated grapes, and models of leading orchard fruits and vegetables.

Logic and Psychology.

1. *Logic.* Third year, spring term. The art of reasoning correctly is aided by a study of systematic logic, both deductive and inductive. Special prominence is given to methods for exact observation and experiment and correct principles of classification. The previous researches and experience of the students are made to illustrate these principles.

2. *Psychology.* Fourth year, spring term. A short course in psychology gives the general principles of intellectual and moral philosophy. Sensation, apperception, perception, memory, imagination, thought, feeling and volition are topics of explanation and analysis. Theories of right and wrong and correct principles of action are made the means of a clear understanding of individual responsibility, with special attention to personal rights and duties. Topics are assigned for research, to be presented in thesis form at the close of the term.

Mathematics.

It is the aim of the department of mathematics to give a thorough training in a small number of subjects, and to develop in the student the ability to attack new problems, rather than to burden his mind with a large number of facts or special methods. It is also characteristic of the methods of the department that an attempt is made to give to the mathematical subjects a touch of human interest by directing the attention of the student to the historical development of these subjects. For example, the course in plane geometry is opened by a lecture on the history of geometry. The following statement contains a brief description of the courses planned for next year. They differ from those given during the past year, in that the additional term obtained by raising the entrance requirements is given to algebra, and in that one term of algebra is taken from the elementary algebra and placed after trigonometry at the end of the second year.

All the following courses are required in the engineering course. Courses 1 to 6 inclusive are required, and 7, 8 and 9 are elective in the science course. Courses 1 to 4 inclusive are required, and 5 may be taken in the domestic science course. Courses 1 to 5, inclusive, are required in the agricultural course.

Elementary Algebra. Text-book, Wells's Higher Algebra.

Requirements for admission to first-year classes include the fundamental operations, factoring, highest common factor, least common multiple, fractions, and simple equations with one unknown quantity, both integral and fractional. Special attention should be paid to the acquirement of a thorough understanding of the principles of factoring, and of skill in the application of these principles, equivalent to first 131 pages of the above text.

1. First year, fall term. Simple equations with more than one unknown quantity, involution, evolution, fractional and negative exponents, radicals, and quadratic equations with one unknown quantity.

2. First year, winter term. Quadratic equations completed, ratio and proportion. Review of work covered so far.

Geometry. Text-book, Phillips and Fisher's Elements of Geometry, abridged edition.

3. First year, spring term. First, second and third books, with numerical exercises and theorems for original demonstration.

4. Review of previous work; fourth, fifth, sixth and seventh books treated as before, with original exercises. A short time is devoted to books eight and nine, only a few important propositions being demonstrated.

5. *Trigonometry.* Second year, winter term. Solution of plane triangles, essentials of trigonometry, applications to surveying and navigation.

6. *Higher Algebra.* Second year, spring term. Factoring, theory of quadratics, ratio and proportion, variation, series, undetermined coefficients, indeterminate equations, logarithms, elementary theory of coördinates.

7. *Analytic Geometry.* Third year, fall term. Text-book, Tanner and Allen's Analytic Geometry. Rectangular and polar coördinates, the straight line and circle, other conic sections, the general equation of the second degree.

Calculus. Osborn's Calculus, with lectures.

8. Third year, winter term. Differentiation, with the usual applications to maxima and minima, mechanics, series, etc.

9. Third year, spring term. Integration, with applications.

In addition to these, courses in theory of equations, differential equations, elliptic functions or other branches of the higher mathematics may be given to postgraduate students, or to undergraduates who are able to carry extra work.

Mechanical Department.

EQUIPMENT.

The shops of the Kansas State Agricultural College are furnished with the best modern machinery and tools for working both wood and iron, and are in operation six days per week throughout the year.

Wood Shop. The wood-working room is 40x103 feet, contains 220 separate kits of tools, and benches for fifty students in each class; lathes, planer, circular saw, friezer, mortising machine, grinders, and tool room containing all kinds of wood-working tools for general use, together with complete outfit of wheelwright's tools.

Machine shop. This room is 40x80 feet, contains twelve fourteen-inch engine-lathes, one sixteen-inch combination engine and turret lathe, speed lathe, Gray planer, Hendy-Norton shaper, Browne & Sharpe No. 2 universal milling-machine, Walker universal grinder, special drill grinder, key seater, bolt cutter, pipe machine, vertical drills, fifty-one-inch vertical turning and boring mill, benches and tools for fifty students, and a completely stocked tool room, equipped with the finest modern tools.

Blacksmith Shop. This room is 40x50 feet, equipped with twenty-four forges fitted with power exhaust. Each forge has anvil and complete set of smithing tools. In addition to the general tools for a fully equipped blacksmith shop, there are also installed here power punch and shears, cold saws, and a number of pieces of special apparatus built by the department.

Iron Foundry. This room is 40 x 50 feet, equipped with two-ton cupola, core oven, an exceptionally large number of flasks, ladles, traveling hoist, etc. The foundry makes all castings for machine building, together with boiler fronts, grate-bars, and special repair work.

Brass Foundry. This room is 16 x 30 feet, with crucible furnace, flasks, and complete equipment for bench and floor molding. The product consists of bearings, friction metal, valves, fittings, etc.

Pipe-Fitting Room. This room is 18 x 50 feet, contains a motor-driven Jarecki pipe machine, and is completely equipped with tools used by steam-fitters. Practice in pipe-fitting and steam-fitting is given.

Engineering Laboratory. This room is 35x40 feet, contains a great variety of apparatus, among which may be specified a 100,000-pound testing machine, both automatic and autographic; Flather transmission dynamometer, for determining the power required by various machines; complete cement-testing outfit; absorption brakes; steam indicators; gauge-testing apparatus, and a variety of special machines

for the testing of material; also, thermometers, calorimeters, speed indicators, etc. The very complete boiler- and engine-room adjoining the laboratory, together with a ten-ton refrigerating plant, afford special opportunities for the work relating to steam engineering and refrigeration.

Power Plant. The boiler-room contains five sixty-horse-power horizontal return-flue boilers, one 100-horse-power boiler, pumps, steam-traps, etc. These boilers are used for the generation of steam both for power and heating purposes, and are independently connected, that they may be tested individually and in groups. The engine-room is equipped with one 100-horse-power medium-speed engine, direct connected to sixty-K. W. multipolar generator, with marble switchboard and complete apparatus; one fifty-horse-power Ball & Wood engine, belted to bipolar generator, with switchboard; one ten-horse-power Atlas engine; one five-horse-power generator, built in the shops, for testing purposes; one Shipman coal-oil engine, and several small dynamos for testing purposes. In connection with the power plant is a very complete rope drive installation, especially designed for the department.

Classroom. On the second floor of the wood-working department are found the classrooms, drawing-rooms, photographic room, paint room, varnish room, and pattern-storage room.

Courses of Study. The mechanical department offers the following lines of instruction:

I. Mechanical engineeering course.
II. Apprentice course.
III. Manual training.
IV. Short course in farm mechanics and repair work.

I.— MECHANICAL ENGINEERING COURSE.*

This course offers four years' training in mechanical-engineering subjects, and its object is to fit young men for responsible positions in that profession. It prepares for the successful management of machinery and manufacturing establishments, the designing, building and erection of machinery, superintendence of construction, etc. Though the work is largely technical, general studies of a broadening character are not excluded. The course includes instruction by text-book, lecture, laboratory, and workshop practice, and is especially based on mathematics, pure and applied mechanics, physics, chemistry, machine design, structural design, and steam engineering.

The course of study has been laid out with the aim of securing a judicious mixture of theory and practice, such as will not only give

* For skeleton outline of course, see pages 57–59.

the student the technical skill required for engineering operations, but also a broad grasp of the fundamental principles of his profession. The advantages of combining a practical application of principles with theoretical instruction at the time these principles are being impressed by classroom work is well known. The shop work, being purely educational in its character, is so arranged that each student can make as rapid advancement as possible. Instruction is given by skilled workmen, and the work carried on is of the most practical character, being in fact the building of lathes, engines, drills and machinery for the market and the department. In all shop practice the students work from blue-prints, thus learning to read drawings readily and supplementing the work of the drawing department.

Based upon the fundamental principle that laboratory and shop work, combined with technical training, constitute one of the most important features of engineering education, the following course is offered:

Shop Work. First year, fall term. A graded set of problems in joining, working dimensions together, with proper use and care of bench tools and simple problems in construction, through which each student is advanced according to his ability.

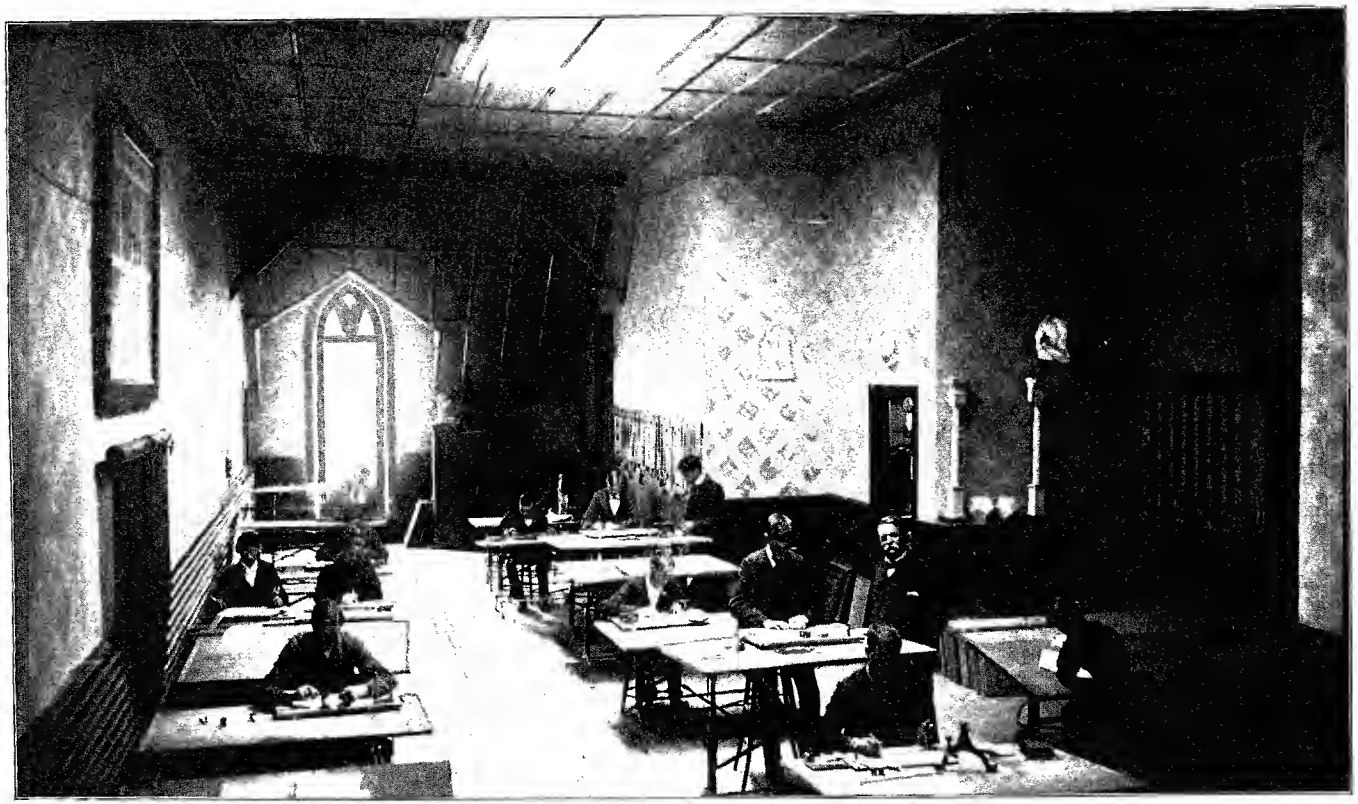
Shop Practice. First year, winter term. Advanced practice in general woodwork, carpentry, cabinet-making, turning, and pattern-making. Special attention is given to the making of patterns for machinery and apparatus to be constructed in the shops.

Shop Work. First year, spring term. Practical foundry work will include instruction in both bench and floor molding, core making, cupola practice, and the making of iron and brass castings for machine building.

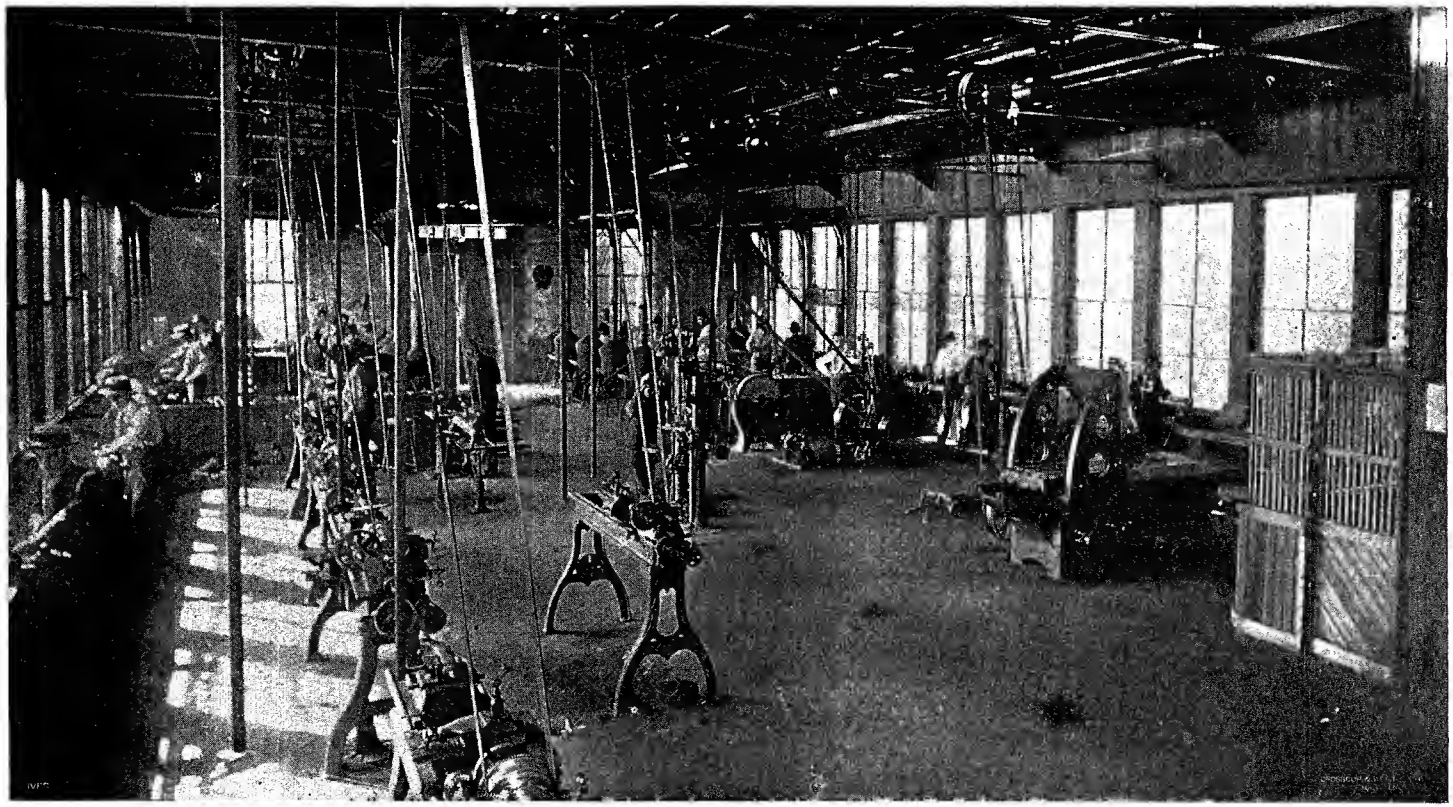
Machine-shop Practice. Second year, fall term. Blacksmithing, graded series of problems in forging, welding and forming under the hammer; designed to teach the management of material and blacksmith tools. Advanced work is given in the working of steel, forging and tempering of tools.

Elementary Analytical Mechanics. Second year, winter term. A course in elementary mechanics, including the laws of motion, force, work, and energy, together with the composition and resolution of forces and moments.

Shop Practice and Lectures. Second year, winter term. Instruction is given in bench and machine work, filing and fitting, and laying out work from drawings, together with simple problems in turning and planing. Lectures are given on machine-shop tools, their use, care, and construction; also, on shop standards and methods.



DRAFTING ROOM.



MACHINE-SHOP.

Hydraulics. Second year, spring term. Lectures on hydromechanics will be given, including problems in flotation, flow from orifices and pipes, together with the measurement of water by weirs and jets.

Shop Practice. Second year, spring term. Machine-shop work on planes, lathes, shapers, milling-machine and grinder, giving general shop practice in the construction of machinery.

Shop Practice and Lectures. Third year, fall term. Shop practice will comprise advanced machine work and the building of fine tools and special apparatus and machinery. Lectures will be given on machine-shop methods of production, cost of work, and arrangement of factories and machinery.

Mechanical Drawing. Third year, winter term. The drawing of this term will begin with exercises in lettering and the making of simple working drawings, followed by construction drawings to scale and the preparation of plates of standard details.

Graphic Statics. Third year, winter term. The graphical determination of stresses in trusses, frame structures, and machines, together with the design of roof trusses and cranes.

Shop Practice. Third year, winter term. Machine-shop practice, together with instruction and practice in the boiler-house and engine-room, the management of pumps, engines, and electrical apparatus.

Principles of Mechanism. Third year, spring term. A study of the fundamental principles of machinery, with special work in gears, linkages, belting, and devices for transmission of power.

Machine Design. Third year, spring term. Designing follows the work in drawing and is based on Low & Bevis's text. Complete designs of simple machines and tools are made, with tracings and blue-prints.

Shop Practice. Third year, spring term. In this term advanced machine-shop work is supplemented by practice in steam- and pipe-fitting as relates to power-house work and heating-systems.

Mechanics of Materials. Fourth year, fall term. This course is based on Merriman's text on engineering materials, with special attention to the mechanics of beams, columns, shafts, and practical problems on the use of construction materials.

Engineering Laboratory. Fourth year, fall term. Engineering laboratory practice will include tests of power by both absorption and transmission dynamometers, engine and boiler tests, calibration of electric machinery, strength of materials, etc.

Foundations. Fourth year, fall term. Practical problems will be given in foundations for machinery, retaining walls for earth, the stability of soils, and construction of earthen dams.

Shop Practice. Fourth year, fall term. Shop practice of this term will include the building of special machinery, such as engines, lathes, and laboratory apparatus.

Applied Mechanics. Fourth year, winter term. A text on applied mechanics, consisting largely of practical problems, will be used to instil the principles of theoretical mechanics.

Engineering of Power Plants. Fourth year, winter term. Hutton's text on mechanical engineering of power plants will be used as a basis for study of the design of engines, boilers, and the details of modern power plants.

Engineering Laboratory. Fourth year, winter term. Advanced work in the engineering laboratory will be given, covering tests of structural materials, the determination of power, hydraulic experiments, calibration of instruments, and tests of electric machinery.

Machine Design. Fourth year, winter term. Beginning with machine parts, the work will include the complete design of machines and the making of working patterns, pattern drawings, and blue-prints.

Shop Practice. Fourth year, winter term. Machine-shop practice in the building of machine tools and testing apparatus for laboratory.

Applied Mechanics. Fourth year, spring term. A continuation of previous term's work, embracing instruction in the application of dynamics to practical problems in machinery and structures, the stresses in machines, elastic properties of materials, hydraulics, power-transmission mechanisms, etc.

Thermodynamics. Fourth year, spring term. Special attention is paid to the theory and underlying principles of the steam-engine, steam-turbine, explosion engines, compressed-air apparatus, and refrigerating machinery.

Machine Design. Fourth year, spring term. Advanced work in the designing of machinery, engines, and tools, attention being given to the development of complete machines for special work.

Thesis. Fourth year, spring term. Engineering students are expected to present, for graduation, a suitable thesis on some subject relating to their work. Practice in the machine-shop is omitted in this term, and it is considered that the thesis work should occupy at least twenty hours per week.

POSTGRADUATE YEAR.

Postgraduate work in mechanical engineering has been arranged with special view of making it available for students of limited means. The department is contantly building machinery and apparatus, and students who have taken the four-years mechanical engineering course are considered sufficiently skilled to be employed in the ma-

chine-shop on this work. The fund for student labor does not allow for the payment of high wages, but enough work can be provided to enable the students to pay their expenses while taking one or more years of postgraduate study. The advantage of being able to do postgraduate work and pay expenses at the same time is self-evident, and opportunities to do so are rare. A systematic course has been arranged, which includes the following subjects:

FALL TERM.	WINTER TERM.	SPRING TERM.
Thermodynamics.	Thermodynamics.	Engineering design.
Power transmission.	Steam-engine design.	Advanced mechanics of machinery.
Steam engineering.	Mechanics of machinery.	Experimental laboratory and original investigation.
Laboratory practice.	Laboratory practice.	Thesis.

Variations in the above line of work in the direction of civil and electrical engineering subjects will be arranged for students so desiring.

II.—APPRENTICE COURSE.

Many who are unable to take the four-years engineering course and who wish to learn a trade, will find in the apprentice course opportunities to obtain practical skill in carpentry, blacksmithing, foundry, and machine-shop practice, boiler and engine attendance.

In the apprentice course the advantages of the shops are offered free to a limited number of young men who cannot enter regularly in the College classes. Since instruction rather than money-making is the object of this course, it can be readily seen that the apprentice work under skilled instructors offers many advantages over the ordinary trade apprenticeship. The number that can be accommodated for the coming year is estimated at thirty, and the work given is of the most practical character.

Requirements are as follows: Young men must be at least eighteen years of age, and their attendance on regular College duties must be obviously impracticable, must observe College regulations, must agree to work at least thirty hours per week in the shops, and must remain in the shops for a minimum period of forty weeks. No charge of any kind is made, nor is any pay given to apprentices. All apprentices are taken on one month's trial, that those not naturally suited for such work may be relieved of the necessity of remaining the full period.

The time and requirements given above are the minimum, and apprentices are urged to put in more time than thirty hours per week and to remain for a longer period than forty weeks. This course continues throughout the year and can be entered whenever a vacancy occurs. Apprentices will be given instruction in blacksmithing till forgings can be readily made and the various tools required in machine work can be shaped and tempered. Foundry practice will include regular floor and bench molding of general machine castings, core making, cupola management, brass molding, and the mixing of

various alloys. In the machine-shop apprentice students will be advanced through vice work, fitting, filing and scraping as rapidly as possible. This will be followed by general machinists' work on lathes, drill-presses, planer, shaper, milling-machine, universal grinder, etc. The machine-shop regularly builds lathes, grinders, engines, drills and various machines for equipment and for the market. At this work the apprentices gain more than ordinary skill, and in the past the graduates from this course have had no difficulty in securing desirable positions as mechanics.

III.—MANUAL TRAINING COURSE.
For students of the general course.

The full facilities of the department are offered to students choosing their industrial work in the shops. A definite and progressive course has been outlined, which will give the students a broad understanding of the use of tools and of constructive methods in the working of both wood and iron. The course is in the nature of advanced manual training and is given in all branches of the department, though the amount of time that the student devotes to any branch is entirely optional.

Wood Work. Beginning with simple problems designed for the use of tools, the students are advanced through joining, cabinet-making, turning, general wood work, and carpentry.

Blacksmithing. Blacksmithing is taught in the most systematic manner, beginning with simple forging and welding, and advancing to tool making, tempering, hardening, and general blacksmith work.

Foundry Practice. Foundry practice is given in both floor and bench molding, including the making of cores, brass and iron castings, and the mixing of special alloys.

Machine-shop Work. Machine-shop practice includes bench and machine work in a great variety, chipping, filing, scraping, and laying out of work from drawings, which leads to the machine work required in actual building of apparatus and machinery.

Boiler- and Engine-room. Boiler- and engine-room practice is given to those desiring, and includes firing, care and attendance of engines, pumps, etc.

Pipe- and Steam-fitting. Work in this line is offered in great abundance.

IV.—SHORT COURSE IN AGRICULTURAL MECHANICS AND REPAIRING.
Outline of shop work.

The shop work of this course is a part of the short course in agriculture and mechanics, the full description of which can be found on page 60.

First Term. One winter term of twelve weeks. The purpose of the shop work in this term is to teach students the repairing of farm

implements and machinery. Blacksmithing will commence by teaching forging and welding, the construction of clevices and singletree clips, forging of wagon and plow ironware, the sharpening of plowshares, harrow teeth, and general blacksmithing work as is directly useful to the agriculturist. With this work will be included the shrinkage and setting of tires, and repairs of farm machinery, such as reapers, binders, mowers, etc., together with the sharpening of blades and various agricultural implements. Students desiring can take farm carpentry in this first term with special reference to wagon beds, the framing of harrows, making of boxes, cribs, etc. During this term the students will be assisted and encouraged to make a blacksmith forge and necessary tools, that they may take home with them a complete blacksmith outfit at the end of the term.

Second Term. One winter term of twelve weeks. In the second term students will take additional carpentry as applied to wheelwrights' work, the repair of wheels with new spokes, new felloes, the ironing of the same, and more advanced blacksmith work. The care of boilers and engines will be taken up, that agricultural students may be able to operate farm engines and machinery. The building of frame structures such as ice-houses and farm creameries will be given, both by lecture and practical work. Lectures on the strength of materials will be given, that students may intelligently erect such buildings as are most needed on the farm.

In both terms the work of the students will be supplemented by practical lectures on the care and use of farm machinery and subjects of technical interest to agriculturists. It is believed that this work will put the students taking it in a position to make nearly all the repairs necessary on the farm, and will also enable them to do a large amount of constructive work at small cost.

Military Training.

Drill Regulations. During the winter term of the first year the cadets have one lesson per week in the "Drill Regulations of the United States Army." This includes a study of the soldier, the squad and the company, and their organization and movements.

Military Science. Three hours per week are devoted to the study of the elements of military science during the winter term. The recitations and lectures embrace the elementary principles that govern the art of war, the disciplining of troops, military law, the use of the small arms, and, in fact, give a practical knowledge of applied military science, such as an officer of volunteers should be conversant with when called into the field.

Infantry. Special attention is given to setting-up exercises, school

of the soldier, company, and battalion, and such ceremonies as parades, reviews, inspections, and guard mounts.

Artillery. Manual of the piece, mechanical maneuvers, and practice firing with blank cartridges.

Target Practice. A good range gives excellent opportunity for rifle practice, which receives considerable attention.

Signaling. A class is instructed each year in the sending and receiving of messages by the flag system in use in the regular army.

The national government has supplied the College with 245 cadet rifles and an equal number of sets of infantry accouterments; also, two three-inch field guns and carriages. Swords, target supplies and annual issues of ball and blank cartridges are also received from the general government. The College furnishes uniforms to all students, to be worn only during the drill hour.

War Department Record. At the close of the year the names of the three cadets most distinguished in military science and tactics are reported to the war department for insertion in the United States army register, and also to the adjutant-general of the state.

Organization. The cadets are organized into a battalion of four companies and a band. The commissioned officers are chosen from the Senior and Junior classes, and the non-commissioned from the Sophomores.

Music.

Recognizing music as a factor in education which is practical and elevating, and believing that the germ of artistic faculty exists in every normal person, the following unique and generous provisions have been made for its introduction into the several courses.

Instruction in music is furnished free, under the direction of the professor in charge, to all students in the College, as follows:

1. *Notation and Theory.* Class "B" meets on Tuesday at 1:30 P.M.; class "A" on Wednesday at 12:20 P. M.

2. Classes in harmony and composition will be formed when the demand justifies their organization.

3. *Vocal Music.* "B" classes meet on Tuesday at the first and third hours, and on Wednesday at the second hour. "A" classes meet on Thursday at the first and third hours, and on Friday at the second hour. A general class meets on Friday at 12:20 P. M.

4. *Instrumental Music.* Instruction upon the piano, organ, violin, mandolin, guitar, flute, clarinet, cornet and the more important orchestral and band instruments is given free to students in the regular courses, under the following restrictions:

5. It may be taken as an elective for the year in place of oratory by members of the domestic science course.

6. *Industrials.* It may be taken as an industrial by ladies only, in connection with their notation and vocal music, after the required industrials of the first year, and after passing an examination equivalent to two terms in vocal music, in which case, one period's daily practice at the College or at home is required.

7. *Extras.* It may be assigned as an extra to students, ladies or gentlemen, who do well in their general course of study, on the same conditions as above, excepting as to practice, when students may furnish their own instruments.

8. Students taking music as an elective will be required to furnish their own instrument if they wish to practice more than one period.

9. *Musical Organizations.* Students who are sufficiently advanced to join the College glee club, College orchestra, special orchestra, or the mandolin, guitar and banjo club, or the elementary band, or the College band, may become members by assignment.

10. All music is optional—is taken at the choice of the student—but after assignment regular attendance is required as at the other classes. Class organization shall be wholly under the control of the professor of music.

11. Music for commencement week and other public College exercises is furnished by the musical department, under the direction of the professor in charge, and all students in the department shall be subject to his call to assist in furnishing the same.

Oratory.

The work in this department is given during two terms in the agricultural and mechanical-engineering courses, and during four terms each in the domestic science and science courses. For the amount of time in each course, see schedule of courses of study.

The aim of this course is to so develop the powers of the student's mind, that he may be able to think clearly for himself and to express his thoughts effectively in oral form. Practical work will be done according to natural and scientific methods. Occasional lectures will be given on topics relating to this department. In all departments, personal criticisms and suggestions will be made in so far as practicable.

1. *Physical Culture.* The system of physical culture consists entirely of movements without apparatus, designed to give health, strength, freedom and grace to the body, in order that it may act quickly and truly in obedience to the highest thoughts, feelings and

purposes of the soul. During the entire course daily drill on the exercises will be given in the classroom. The course is thoroughly practical, and will be of benefit to persons in any walk of life.

2. *Voice Culture.* The voice work is designed to fit the voice to fulfil its highest function, namely, to be a willing servant of the soul, and consists of daily practice on exercises for freedom, flexibility, volume and harmony of voice.

3. *Rendering.* The work in rendering is based upon the natural order of unfoldment in the activities of the human mind, and is in accord with the latest approved pedagogical principles, the aim being to cultivate original thought and to produce that condition of mind and heart which shall result in personal power and character. This is done by bringing the pupil into vital relationship with the masterpieces of the greatest minds, and causing the pupils to reproduce in others the same mental states in which those great minds were when they wrote or spoke. The method is free from mechanical dictation, working always from within outward. The results are obtained entirely by means of arousing the activities of the pupil's mind through concentration upon proper objects of thought. Drill in rendering from the platform selections from standard authors, together with criticism and suggestions for practice, will be given throughout the course. The theory and philosophy of different phases of the work will be set forth as far as may be practicable in the time.

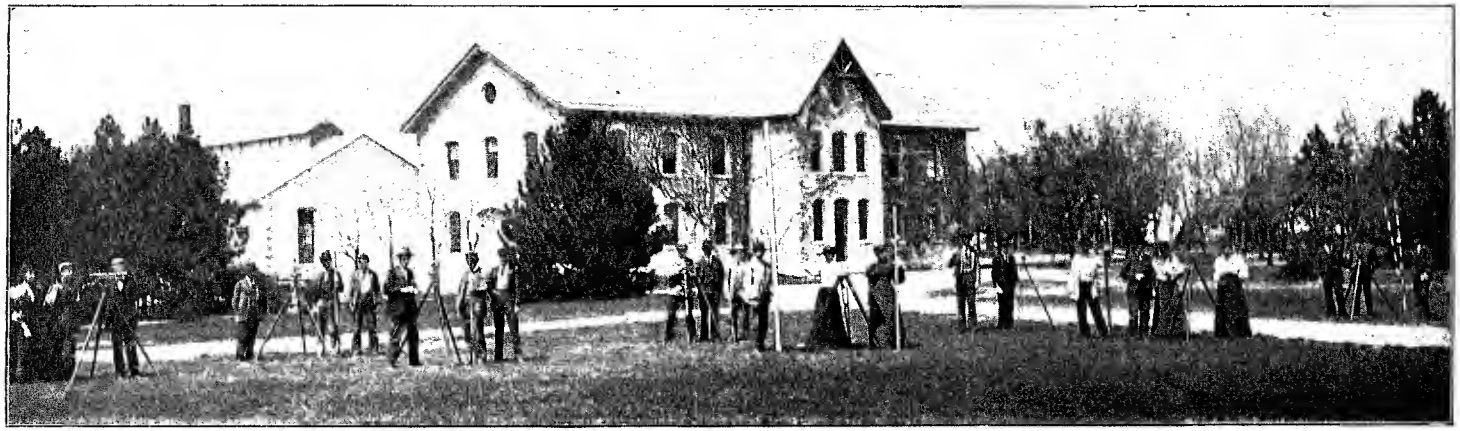
4. *Public Speaking.* Each third-year student is required to appear in public speaking in chapel twice during the year, with declamations. Each fourth-year student is required to appear in chapel once during the year in an original part. For the chapel work the students are prepared by rehearsals with the professor in charge of the department.

5. In addition to the above, assistance is rendered by the department in the preparation of society annuals and class-day program as far as is practicable.

Electrical Engineering Course.

The electrical engineering course is identical with the mechanical engineering during the first three years. In the fourth year the following is offered:

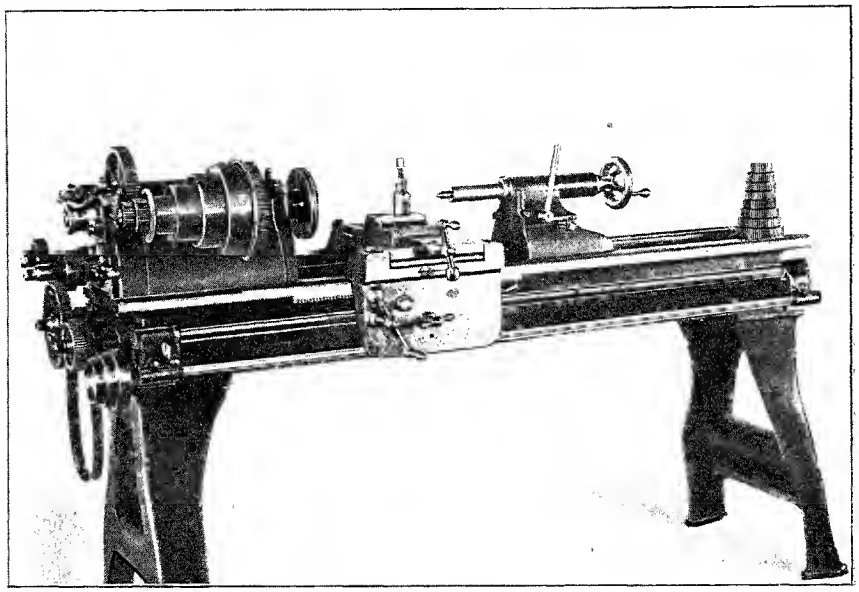
FALL TERM.		WINTER TERM.		SPRING TERM.	
Electricty and Magnetism	5	Sonnd and Light	5	English Literature	5
History of Indnstries	5	Applied Mechanics	5	Applied Mechanics	5
Mechanics of Materials	5	Dynamo-Electric Machines,	5	Thermodynamics	5
Electrical Measurements	5	*Electrical Laboratory*	5	*Applied Electricity*	5
Foundations	5	*Machine Design*	5	Electric Power Transmission	5
Shop	5	*Shop*	5	Thesis.	



SURVEYING SQUADS.—IRON AND WOODWORK SHOPS.

COLLEGE BATTALION.

BARN AND CORRALS.



FOURTEEN-INCH SCREW-CUTTING ENGINE-LATHE, TAPER ATTACHMENT.
Built by students in the shops of Kansas State Agricultural College.

This course is designed to give the student special training which will fit him to meet successfully the problems that confront the practical electrical engineer. The close relationship of the mechanical and electrical engineering courses enables the student to get a knowledge of engine and boiler management and general skill in machine-shop practice and designing. The work consists of lectures, recitations, laboratory practice, and plant testing.

EQUIPMENT.

The equipment consists of apparatus for demonstrations in general physics, and a special equipment and laboratory will be available for engineering students. This will include a complete set of electrical measuring instruments. The distribution of light and power is illustrated by the College heating and power plant.

Physics and Electrical Engineering.

In the following courses instruction is given by text-books, lectures, and experiments. Attention will be called to the practical applications of the principle learned. In all courses special lines of reading will be encouraged, and investigation and experimentation so far as the equipment of the department will permit.

All courses, text-book, Carhart and Chute's Elements of Physics.

1. *Elementary Physics.* First year, spring term. This term's work is intended to give the students a general view of the subject, with such laws and principles as will be useful to them in scientific studies. The importance of accurate observations and conclusions will be impressed.

Engineering courses, text-book, Carhart's University Physics.

2. *Heat.* Second year, spring term.

3. *Magnetism and Electricity.* Fourth year, fall term.

4. *Sound and Light.* Fourth year, winter term.

Agriculture, domestic science and science courses, text-book, Barker's Advanced Physics.

5. *Sound and Heat.* Fourth year, fall term.

6. *Light and Electricity.* Fourth year, winter term.

Electrical engineering course.

7. *Electrical Measurements.* Fourth year, fall term. This course includes practice on the distribution of magnetism, effects of temperature upon magnetism, determination of resistance by various methods, of galvanometer constants, measurements of currents, and electromotive force.

8. *Dynamo-Electric Machines.* Fourth year, winter term. This course consists of the study of the fundamental theory of such machines, of their various forms, and of the practical design and operation of electrical apparatus and machinery.

9. *Electrical Laboratory.* Fourth year, winter term. Advanced electrical testing—the efficiency of dynamos and motors, transformers, coefficients of self and mutual induction.

10. *Machine Design.* Fourth year, winter term. Practice in original designing based on the previous work.

11. *Applied Electricity.* Fourth year, spring term. Study and practice in the application of electricity to bells, telephones, annunciators, etc.

12. *Electric Power Transmission.* Fourth year, spring term. Lectures on central station design and management, electric traction, and transmission of power.

Printing.

Practice Work. The printing department, in the main building, occupies six large rooms, viz.: Superintendent's office, composing-room, pressroom, folding room or bindery, stock-room, and storeroom, all well lighted, amply ventilated, and heated by steam. The printing department affords better facilities than heretofore to the individual student for progress in all that tends to develop the first-class workman. As the printing industrial is open to both sexes, the classes are usually quite large and the stimulus of good example is not lacking; nevertheless, the instruction is of that character in which individual advancement is always taken into account, and opportunity is extended for individual growth in the knowledge of those principles which are of practical utility in the every-day work of a printing-office. Occasion for the gaining of experience and acquirement of skill is supplied by the publication of the weekly *Students' Herald*, the issuing of the monthly *Industrialist*, the execution of the wide range of job printing needed to furnish the various College departments with blanks, quiz and topic lists, lesson outlines and stationery, and the College societies with programs, notices, etc.; thus furnishing a greater range of work for instruction than is ordinarily found in the average printing-office.

The lessons embraced may be briefly summarized under these suggestive topics: The elements of news, book and job composition and imposition; proof-reading and correcting; plain and color presswork; adaptation of various grades of inks and papers; newspaper and magazine folding; wrapping and mailing; tableting of stationery; pamphlet stitching and stapling; and the systematic reading and classification

of exchanges. Instruction in the more common technical terms and phrases, names of typographical tools and their uses, preparation of copy, spelling, capitalization, syllabication and punctuation is largely incidental, and in that way receives all the more emphasis, for accuracy in these matters is recognized as of great value in every walk of life.

MEANS OF ILLUSTRATION.

Printing-office, with thirty pairs of cases; large fonts of six-point, eight-point and ten-point Roman type and italics; a good assortment of wood and metal job type and brass rule; a Babcock cylinder press and a New Liberty quarto-medium job press, run by electric motor; a Gordon eighth-medium job press; mitering, rule-curving and stapling machines; paper-cutter, cabinets, stands, imposing stones, etc.

For opportunities for apprentices, see page 91.

Veterinary Science and Zoölogy.

1. *Hygiene of Farm Animals.* Third year, fall term. As the name indicates, this includes a study of the laws of health relating to farm animals, and incidentally also the laws of health relating to the farm home. These two subjects bear an intimate relation to each other. Among the subjects discussed may be mentioned the following, viz.: The laws of health and disease; care of the various organs of the body; influence of climate, soil, and water; impurities and diseases of food stuffs; animal parasites and their life-histories; injurious insects; breeding; quarantining; disinfection, etc. All these subjects are discussed purely as they have a practical bearing on the health of man and beast. This course consists of lectures and reference reading.

2. *Anatomy and Physiology.* Second year, spring term. For students in the agricultural and general courses. The structure of the body, including the form and use of the skeleton and muscles. The form, size and position of the various internal organs are first considered. Following this the various functions of these organs, such as digestion and growth of tissue, circulation of blood and lymph, respiration, secretion, and excretion, the nervous system and the special senses. This subject is taught with its practical application to the laws of health constantly in view. A few dissections of cadavers of dogs and cats are made before the class, and, when practicable, students will be permitted to assist in this work. This course must precede zoölogy, comparative anatomy, bacteriology, and veterinary science. Recitations are from Martin's Human Body, with lectures and illustrations.

3. *Zoology.* Third year, winter term. This includes in a very general way the study of the science of life, protoplasm, the cell theory, etc. Following this, a study of the animal kingdom, its classification, the origin and distribution of animals, etc. This subject will be made as practicable as possible, and every student will be obliged personally to dissect a number of the lower animals, make drawings of the parts, and thus become familiar with the structure of the beings whose interesting physiology he studies. One of the valuable features of this study is the attending development of the powers of observation in a manner that is impossible by any other means. Lectures, recitations, and laboratory work. This study must precede bacteriology and veterinary science. Ten hours a week.

4. *Bacteriology.* Fourth year, fall term. This is bacteriology as applied to the practical problems of life. Special attention is given to the germ life that is active in the dairy and creamery, its relation to the character of the product turned out, the flavor and keeping qualities of milk, butter, and cheese, diseases of these products, etc. Bacteria as nitrifiers in the soil, as agents of fertility and as causes of disease are studied. Students will learn to stain and mount disease germs, examine them under high-power microscopes, to isolate species and cultivate them in artificial food media, and the endless variety of other interesting work connected with the study of general bacteriology. Must precede veterinary science. Lectures and laboratory work.

5. *Comparative Anatomy.* Fourth year, fall term. This includes a study of the anatomy of the horse and other domesticated animals. Special attention will be paid to the structure and functions of the digestive and nervous systems, in such a manner as to be useful to the farmer and stock-raiser. At the same time, the course in this subject will be so taught that it will be preparatory to a complete course leading to the degree of doctor of veterinary medicine, which, it is hoped, we will be able to offer in the near future.

6. *Veterinary Science.* Fourth year, winter term. The aim of this course is by no means to make veterinary surgeons. This it is absolutely impossible to do in so short a time. But with the studies in zoölogy, farm hygiene, bacteriology and comparative anatomy preceding a course of lectures on veterinary science, it is intended to make a young man thoroughly familiar with the ordinary causes of disease and latest successful methods of avoiding and combating them. A few common infectious diseases of farm animals are discussed in detail. The study of lameness of the horse, selection of horses for given purposes, etc., will constitute part of the term's work. Most diseases

of farm animals can be prevented by intelligent foresight. It is our aim to train young men to exercise this foresight. Lectures and recitations.

7. *Histology.* Arrangements will be made to give instruction in the technique of the microscope and in histology to a class consisting of a limited number of students. This class will be open only to such students as do exceptionally satisfactory work in other branches of natural science. This course also will constitute work for which credit will be given in the proposed full course in veterinary medicine and surgery.

MEANS OF ILLUSTRATION.

The zoological museum, containing numerous representatives of the several classes, especially full in fishes and mollusks of Kansas and in illustrations in economic and systematic entomology. Increasing material in skins, alcoholic and anatomical preparations are available also for the use of the student. For veterinary work there is provided a laboratory fitted with apparatus, instruments and reagents for the study and treatment of disease. An Azoux model of a horse, which is dissectible, showing nearly 1000 anatomical structures, skeletons, charts, and a large collection of anatomical specimens, showing healthy and diseased structures.

The Short Courses.

There are large numbers of young people who from lack of means or time are unable to take an extended course of study, but whose usefulness in the world would be much increased by a little special training. Their earning capacity in the household or on the farm is far from what it might be, and they are thus handicapped in the struggle for a livelihood. To bring to this large portion of the "industrial classes," even in small measure, the "liberal and practical education" provided for by the organic act, the College has established certain short courses of study with practice.

The teaching in these courses, while no whit less accurate than in the others, is upon a different plane. Taking students without scientific or mathematical training, the instruction must be more largely a giving of facts, without an elaboration of the underlying principles which the regular courses afford. The work is intensely practical. Studying such texts as any bright young man or woman can understand, receiving lectures of the same type, and putting into daily practice through industrial exercises the facts and principles learned in the classroom, the student cannot but be greatly benefited. It is hoped, too, that in many cases young people who had thought that they could not afford a four-years course will, by this taste of the

advantages and pleasures of an education, be led into the regular courses.

These courses are put at the seasons of the year which seem likely to accommodate the most students, those for young men being given in the winter term, when farm work is more slack, and the young women's course being in the fall. Four such courses are now offered: A dairy course of one winter term; a domestic science course of two fall terms; an agriculture-mechanics course and a horticulture-mechanics course of two winter terms. The last two courses are identical the first term, but in the second, one treats horticultural lines more exclusively and the other agricultural.

Persons at least eighteen years of age and of a good moral character are admitted to these courses without examination, but should have sufficient training in the common schools to enable them to understand the simple text-books used, and to handle readily problems in common and decimal fractions and percentage. They will be required to attend strictly and constantly to their duties, or leave. They have the same free use of the College library that other students have. Owing to the peculiar nature of the work and to the slight degree of preparation which it assumes, students are required to be present at the very beginning of the course, and those applying later will not be admitted.

Farmers' Short Course.

A Short Course in Agriculture, Horticulture, and Mechanics.

FIRST YEAR, WINTER TERM, TWELVE WEEKS.

Feeds and Feeding. The properties of feedstuffs and their combinations to secure good returns at least cost with products having the desired qualities; effect of foods on quality of products; construction of farm buildings and appliances to secure best returns from feed and for saving labor; a study of the feeding on the College farm. Text-book: Henry's Feeds and Feeding. Lectures.

Horticulture. General principles underlying plant growth; structure and functions of the various parts of the plants; nutrition, formation of seed, etc.; propagation by seedage, cuttage, graftage, and layerage; environment, including the effects of temperature, light, food, and water-supply; possibilities of improvement by cultivation, training, and selection. Text-book: Goff's Principles of Plant Culture.

Fruit Propagation. Practise work in the various methods of budding and grafting, and storing of the same; treatment of grafted stock during the winter and setting it into nursery rows in spring. The making of herbaceous and hardwood cuttings. Winter treatment of tree seeds in preparation for spring planting.

Entomology. Nature, time and expense of the injuries from insect life, and a knowledge of the remedies, when and how to apply them. Structure of a number of insect types; study of the beneficial insects, and the more injurious forms attacking farm, orchard and garden crops. Use of preventives and insecticides.

Crop Production. A study of the soil, the plant and crop growing, including the management of the soil for maintaining and increasing its productivity, the improvement of worn-out soils, conservation of moisture and the preparation of the soil, selection of the seed, method of planting, treatment after planting and harvesting of Kansas field crops to secure best returns at least cost. Text-book, Bailey's Principles of Agriculture. Lectures.

Bookkeeping. The principles are mastered through their practical application to forms adapted to farm affairs. Each student keeps a regular set of books, in which accuracy and neatness are not less important than a correct understanding of principles. A set of books is developed which would be practical for every farmer, accounts being kept with various departments of his business—fields, granaries, garners, orchards, hogs, cattle, milch cows, etc.

Diseases of Farm Animals. The common ailments of farm animals are discussed, their causes and symptoms explained, and preventives and remedies suggested. Inoculation against blackleg and swine-plague will be performed by the student in his course.

Bacteriology. Characteristics of bacteria, their relation to health and disease of man and animals, to soil fertility, and to quality of dairy products; principles and methods of disinfection.

Blacksmithing. Forging and welding, construction of singletree clips, wagon ironing, clevices, horseshoes, sharpening and tempering ploughs and tools, general repair work. Advanced work is also offered in the care and management of boilers and engines. If the student desires, he can make a forge and set of blacksmith tools to take home with him, paying only for the iron used.

Science Lectures. Lectures will be given in both the first and second years of the course by the instructors on subjects of most interest to the students in this course.

SECOND YEAR.—AGRICULTURAL COURSE.

Breeds and Breeding. Characteristics of the breeds of live stock and their adaptability to Kansas conditions; principles of breeding; form as an index of qualities; selection and judging of live stock. Lectures.

Dairying. Milk: its secretion, nature, and composition; causes and conditions influencing the quality and quantity of milk; han-

dling of milk for the market and for butter-making, including milking straining, aerating, cooling, preserving, and shipping; creaming of milk by gravity methods and by the separator; cream ripening and churning; washing, salting, working, packing and marketing butter. Text-book, Wing's Milk and its Products.

Farm Architecture. Each student will be required to prepare plans, elevations, sections, detailed drawings and specifications of a sanitary farm barn, with outbuildings.

Botany. The laws of plant growth, which have a direct bearing upon the raising of grasses, grains, clovers, forage plants, and weeds; a study of the common fungi that affect cultivated plants; seed testing; practical methods of farm seed breeding.

Physics. A consideration of the principles of physics which underlie farm operations, farm mechanics, control of soil moisture, physical laws of tillage, meteorology. A knowledge of the law of physics enables the farmer to store moisture and to reduce loss of water from the soil by evaporation. It is the practical application of these laws that will solve our drought problem.

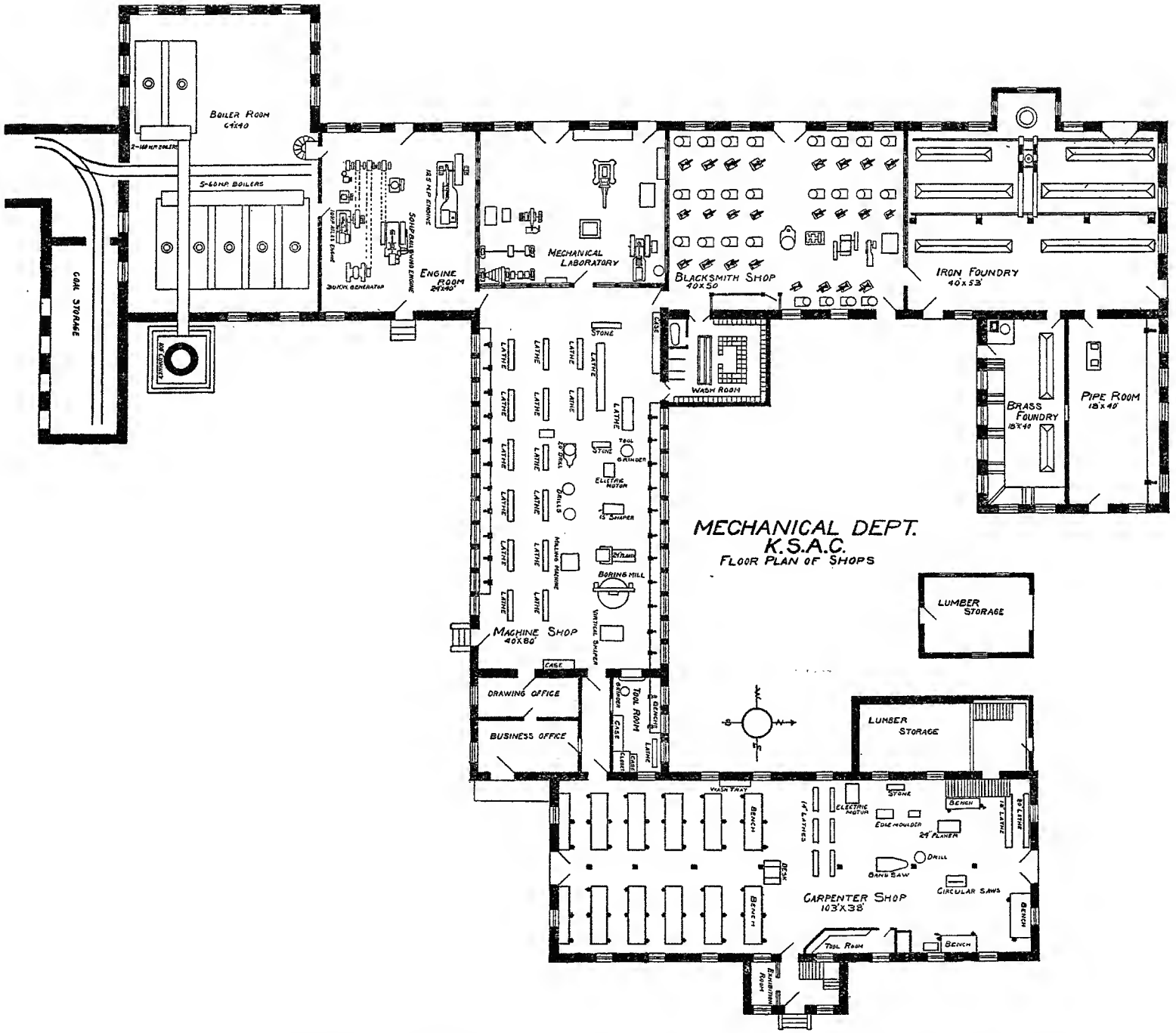
Chemistry. The relation of soils to earth, air, and water, formation and characteristics of different kinds of soils, soil enrichment and improvement, the chemistry of feeds and of animal products.

Farm Carpentry. Elementary woodwork in joinery and construction, followed by general woodwork and carpentry, care and use of farm machinery, the building of frame structures, such as stables, piggeries, poultry-houses, ice-houses, and farm creameries, will be given both by lectures and by practical work.

SECOND YEAR.—HORTICULTURAL COURSE.

Vegetable-Gardening and Small-Fruit Culture. The first half of the term is devoted to vegetable growing, consideration being given to the raising of vegetables for home and market; locations, soils, fertilizers, tools, irrigation, etc., best suited for crops grown in kitchen- and market-gardens; the growing of extra early or late crops, their special treatment, cultivation, and harvesting; the means employed in the preservation of vegetables for future use; vegetables suited to Kansas conditions, methods of improvement, etc. Small-fruit culture occupies the second half of the term. The subject is treated in much the same manner as vegetable-gardening, taking up the cultivation of small fruits and the methods employed in their propagation, handling, and improvement. Five hours per week. Lectures.

Orchard Treatment and Pomology. This branch is devoted to the practical treatment of orchard work; location, soil, planting, pruning,



MECHANICAL DEPARTMENT KANSAS STATE AGRICULTURAL COLLEGE—FLOOR PLAN OF SHOPS.

cultivation and fertility of the orchard; a study of the use and value of windbreaks—how best made, trees suitable for same in Kansas; causes of plant variation, and methods employed in the improvement of orchard fruits; grape growing in the West, a study of the distinctive characteristics of varieties, their value for home and market use; lists of varieties of fruits suitable for Kansas orchards; a general treatment of planning the grounds, location of houses, barns, gardens, orchards, lawns, fields, etc. Five hours per week. Text-book, Bailey's Principles of Fruit-growing. Lectures, with library references.

Orchard Diseases and Insects. The work of this branch is the investigation of various orchard pests. Life-history and depredations of insects and fungus diseases attacking horticultural crops, together with means of combating them, preventives, and remedies; mechanical devices, spraying compounds and machinery, and methods employed in the warfare.

Chemistry and Physics. In classes with the agricultural course.

Dairy School.

ONE WINTER TERM, TWELVE WEEKS.

Principles of Agriculture. Treating of soils, crops, tillage, and manures; the selection, laying out, equipping and management of Kansas dairy farms. Text-book, Bailey's Principles of Agriculture.

Dairy Bookkeeping. Practice in bookkeeping that will enable the student to understand the underlying principles, followed by training in keeping books for farm, dairy, and creamery accounts.

Dairying. Milk: its secretion, nature, and composition; causes and conditions influencing the quality and quantity of the milk; handling of milk for the market and for butter-making, including milking, straining, aerating, cooling, preserving, and shipping; creaming of milk by the separator; cream ripening and butter-making. Text-book, Wing's Milk and its Products. Lectures.

All students will study dairying together for the first half of the term. This class will then be divided, creamery men taking lectures on *Creamery Butter-making*, the cheese-makers on *Factory Cheese-making*, and the dairymen on *Private Butter-making*.

Feeds and Feeding. Properties of common feed stuffs, their effect on character and yield of milk and butter, and their adaptability to Kansas conditions of dairying. The compounding of dairy rations to secure good yields at least cost with products having desired qualities. Careful study of the feeding of the College dairy herd will also be required. Text-book, Henry's Feeds and Feeding.

Breeds and Breeding. Characteristics of leading breeds of cattle, and their adaptability to Kansas dairy farming; dairy farm, and the selection of dairy animals; care and management of the dairy herd; principles of stock breeding. Lectures.

Bacteriology. Relations of bacteria to methods of keeping milk, ripening cream and cheese, and flavoring butter; diseases of milk, their relations to the health of man and animals; principles of disinfection. Text book, Russell's Bacteriology. Lectures.

Diseases of Dairy Cattle. The common ailments of calves and dairy cows are discussed and their causes and symptoms explained, remedies and preventives suggested, all from a practical farmer's standpoint. During the dairy school the College herd will be tested with tuberculin and the students taught how to make the test. Students will also inoculate hogs against cholera and swine-plague. Lectures.

Boilers and Engines. Lectures and practice in the firing of boilers, care and running of engines, pumps, etc. Care and attendance of refrigerating machinery, practice in shops.

Butter-making and Milk Testing. Practice in handling milk and its products from the time it leaves the cow until it is marketed as butter, cheese, or sanitary milk. Students may choose either creamery butter-making, cheese-making, or private dairying. Thorough instruction and practice will be given in all three of these lines. The dairy rooms will be fully equipped with hand and power separators, Babcock tests, churns and butter-workers, aerators, heaters, sterilizers, refrigerating machinery, milk and cream vats, factory-cheese apparatus, Mann's acid tests, and other needed apparatus. Many manufacturers have volunteered to loan us machinery, so that the dairy students may make tests of the work of the different makes of separators, churns, etc.

EQUIPMENT.

One hundred dairy cows, a herd of calves being raised on skim-milk, 200 hogs fattened on skim-milk and grain, 100 fall pigs having skim-milk in their ration. A dairy barn for 100 cows. A model dairy-school building, two stories and basement, 100x105 feet, with butter, cheese, milk and testing rooms, cheese-ripening cellars, refrigerating plant, and cold-storage rooms; all apparatus needed for milk testing and for handling milk from the cow through the creamery to the butter tub or cheese room. Students in the dairy course have free use of the College library, containing 19,704 bound volumes and about 14,600 pamphlets, and in which are kept on file all the leading dairy and farm papers. The students' farmers' club meets weekly to discuss farm questions and furnishes a valuable part of the education offered.

EXPENSES.

Tuition is free. Board and rooms can be secured for $2.50 and upward per week; lunches may be had at the College dining-room at cost; laundry costs about fifty cents per week. Each student will need two white suits and caps for use in the dairy room. These can be purchased in Manhattan. Unnecessary breakage will be charged at cost. Incidental expenses will be high or low as the individual determines. The total of all expenses for the entire time, exclusive of railroad fare in coming and returning, need not exceed forty dollars, and with close economy may be made less. Students in the dairy course cannot expect to earn any part of their expenses while at the College, as every hour will be needed for class work, practise, or study.

Short Course in Domestic Science.

FIRST YEAR, FALL TERM, TWELVE WEEKS.

Lectures and Practice in Cooking. This work includes the following topics: The origin and purpose of cooking, and the effects of heat and cold upon starch and albumen; direct application of the principles learned to the cookery of eggs, vegetables, beverages, and soups; the general cookery of meats, with study of the meat charts; baking-powders, their composition and adulteration; yeast, and bread-making by fermentation.

Drawing. The work in drawing is especially adapted to the needs of this class of students; it will consist of free-hand and geometrical drawing.

Sanitation and Household Accounts. Care of the kitchen, living-rooms, sleeping-rooms, dining-rooms, etc., including the cleaning of kitchen utensils and lamps, sweeping, dusting, and care of plumbing. A simple method of keeping accounts of receipts and expenditures will be given.

Sewing. Pupil makes a model book covering the full course in hand sewing, and consisting of basting, gathering, darning, patching, etc. Machine practice, drafting, cutting and making underskirt and drawers; drafting, fitting and making dress without lining; cutting and making corset cover and night-dress.

Materials for the model work will be furnished by the College. Each pupil will furnish her own material for the garments, but if sufficient proficiency is shown in making the first garment, pupils may be allowed to take orders for the others.

Vegetable-gardening and Floriculture. The first half of the term is devoted to vegetable growing. Subjects treated include the raising of vegetables for home and for market, with location, soils, manures, tools, irrigation, etc., best suited for crops grown in kitchen-

and market-gardens; the construction and manipulation of hotbeds, cold-frames, and winter gardens; the growing of early and late crops, their special treatment, methods of cultivation, planting, transplanting, harvesting, and marketing; a study of varieties suitable to local conditions; and the origin, nature and methods of improvement of vegetables. The last half of the term is devoted to floriculture. Lectures in the classroom are supplemented by practical exercises in the greenhouses and gardens, treating of the propagation and culture of flowers, including the treatment of seeds, cuttings, mixing of soils potting, repotting, watering, cut flowers, packing, and the many operations that attend amateur and commercial flower-gardening.

SECOND YEAR, FALL TERM, TWELVE WEEKS.

Lectures and Practice in Cooking and Home Nursing. The following subjects are taken up: The food principles and their classification; the uses of food in the body; canning and preserving; cookery of the various combinations made with eggs, thus involving the application of heat to albumen; simple chemistry of bread-making, rolls, puddings, etc.; practical lessons in frying and in cookery of salads, plain pastry, dessert, and cake; a series of six lessons in invalid cookery, including gruels, toast, beef tea, soups, eggs, and milk; and six lessons in home nursing.

Physics. The subjects of mechanics, sound, heat, light and electricity will be briefly treated by lectures, especial attention being given to heat in its relation to cooking, ventilation, etc.

Chemistry. By means of lectures, accompanying a single text-book, the attempt is made to give the students some idea of the nature of chemical action, and to impart the facts most directly bearing upon cleaning, sanitation, cooking, and nutrition. A weekly written quiz is a part of the work.

Bacteriology and Physiology. Characteristics of bacteria and their relation to health and disease, to quality and preservation of foods, principles and methods of disinfection; physiology and hygiene of the human body; laws of health and care of the sick.

Dressmaking. Pupil will be taught to adapt and use pattern taken from pattern sheet, also use of dress-cutting system, cutting, fitting and making woolen dress. Pupil will furnish her own material for the first dress, but if sufficient proficiency is shown she will be allowed to take orders for the others.

General Information.

Examinations.

Examinations for admission are held at the beginning of each term, as shown in the calendar of the college year. Applicants at other times during the school year have special examinations. These examinations are chiefly written, and a grade of seventy per cent., at least, must be obtained to pass a study.

Examinations in the courses are held twice each term, as announced in the calendar. The results of these examinations, marked on a scale of 100, are combined with the grades of the preceding daily exercises into a grade for the period. Grades reported to the Secretary for record are made up by giving the mid-term record a value of one-third and the record for the last half of the term a value of two-thirds. For passing a study, the mean grade so calculated, and also the grade for the last half of the term, must be at least seventy. Any student receiving less than a passing grade on two or more studies may either drop back a year or withdraw from the College. Any student may receive a certificate of standing, upon leaving College at the close of a term.

Students deficient in entrance studies must make good such deficiencies before entering on the work of the second year. Students are not catalogued in the third-year class unless all deficiencies of the preceding years are provided for. Candidates for graduation must make good all deficiencies before entering on the work of the spring term of the fourth year.

After entering college, students are allowed special examinations only upon recommendation of the professor in charge, and by permission of the Faculty. Permission for examination in studies not pursued with a class must be obtained at least two months before the examination is held. All such examinations are held under the immediate supervision of the professor in charge, and are thorough and exhaustive. Students desiring credit for work done elsewhere must bring certificates and catalogues to show that the work done is equivalent to ours.

Terms of Admission.

Applicants for admission must be at least fourteen years of age. The courses, given elsewhere, are based on the following entrance requirements: Reading, spelling, writing, geography, arithmetic, United

States history, English grammar, English composition, elementary physiology, bookkeeping, and algebra through simple equations of one unknown quantity. It is recognized that only the very best rural schools will prepare students for unconditional entrance, and the College will therefore maintain preparatory classes under experienced teachers for the instruction of such as are unable to fully pass the entrance requirements. Applicants over eighteen years of age, who for lack of early advantages are unable to pass even the common-school branches, may, under special conditions, be admitted to preparatory classes, but all others will be expected to pass them.

Examinations for admission are held at the beginning of each term. Applicants at other times during the school year have special examinations. These examinations are chiefly written, and a grade of seventy per cent., at least, must be obtained to pass a study.

On entrance, applications for advanced standing in the courses or for credit for certain studies of the courses may be made to the chairman of the Committee on Examinations. After entrance, such applications should be made to the professor in charge of the study. In any case the applicant will be required to pass such an examination as the professor in charge deems necessary.

Applicants may receive credit without examination for such entrance requirements as may be covered by the following:

1. Grades of at least seventy per cent. on a Kansas teacher's certificate.

2. Diploma received on completion of a county course of study which has been approved by the Faculty.

3. Certificate of passing the grammar grade, or graduating from the high school, of any city with a course of study approved by the Faculty.

The courses of the following cities and counties have been approved by the Faculty, and others may be submitted at any time:

CITIES.

Abilene.	Coffeyville.	Hiawatha.	Lyons.	Pratt.
Alma.	Colnmbus.	Holton.	Manhattan.	Rnssell.
Anthony.	Concordia.	Horton.	Mankato.	Salina.
Argentine.	Council Grove.	Humboldt.	Marion.	Scranton.
Arkansas City.	Dexter.	Hutchinson.	McPherson.	Sedan.
Atchison.	Dodge City.	Independence.	Minneapolis.	Seneca.
Augusta.	El Dorado.	Iola.	Neodesha.	Solomon City.
Baldwin.	Ellsworth.	Junction City.	Newton.	St. Mary's.
Belleville.	Emporia.	Kanopolis.	Olathe.	Topeka.
Beloit.	Enreka..	Kansas City.	Osage City.	Valley Falls.
Burlingame.	Fort Scott.	Kingman.	Osborne.	Wamego.
Burlington.	Fredonia.	La Cygne.	Oswego.	Washington.
Caldwell.	Garden City.	Larned.	Ottawa.	Waverley.
Chanute.	Garnett.	Lawrence.	Paola.	Wellington.
Cherryvale.	Gaylord.	Leavenworth.	Parsons.	Wellsville.
Chetopa.	Girard.	Lebo.	Pittsburg.	Winfield.
Clay Center.	Great Bend.	Lincoln.	Pomona.	Wichita.
Clifton.				

COUNTIES.

Allen.	Douglas.	Kingman.	Nemaha.	Rush.
Anderson.	Elk.	Labette.	Neosho.	Russell.
Barber.	Ellis.	Leavenworth.	Ness.	Saline.
Brown.	Ford.	Lincoln.	Osage.	Sedgwick.
Bourbon.	Franklin.	Linn.	Osborne.	Shawnee.
Butler.	Geary.	Lyon.	Ottawa.	Smith.
Chase.	Greenwood.	Marion.	Phillips.	Sumner.
Cherokee.	Harper.	Marshall.	Pottawatomie.	Wabaunsee.
Clay.	Harvey.	McPherson.	Republic.	Washington.
Cloud.	Jackson.	Miami.	Reno.	Wichita.
Cowley.	Jefferson.	Mitchell.	Rice.	Wilson.
Dickinson.	Jewell.	Montgomery.	Riley.	Woodson.
Doniphan.	Johnson.	Morris.	Rooks.	Wyandotte.

COUNTY HIGH SCHOOLS.

Atchison and Dickinson.

Counties and cities on the accredited list may be called upon at any time to furnish evidence that they are maintaining a satisfactory standard of scholarship.

The studies of the first year, and many of the second, are taught in two or all of the terms of the year, and not simply in the terms shown in the schedule, so that students who enter deficient in a term's work on entrance studies will go right on with first-year work the next term. It is quite possible for a good student who enters somewhat behind to make up his deficiency in the course of a year or two and graduate in four years.

Students should make every effort to enter on the first day of the term. Those entering later will be at a serious disadvantage, and if more than two or three weeks late should expect to take review work or fewer studies. If unable to enter before mid-term it will be better to wait until the next term.

Hospitants.

That mature persons not able to attend College continuously may nevertheless be able to enjoy, in a measure, the privileges of the institution, an invitation has been extended to all citizens of Kansas who may be so disposed to visit the College, its lectures, laboratories, library, shops, and various departments, and to avail themselves as fully of its advantages as may be consistent with their wishes, with the needs and duties of the regular students, and with the harmonious and successful working of the institution. Following are certain rules concerning hospitants:

Persons regularly attending any of the classes of the Kansas State Agricultural College, without assuming the regular duties of students, will be known as hospitants, and—

1. Must be persons of mature age, whose attendance on regular College duties is obviously impracticable.

2. Must be properly enrolled at the President's office.

3. May attend any of the regular classes of the institution, subject to the same regulations, with regard to punctuality and attendance,

as are imposed upon regular students, except as to recitations and examinations.

4. May use the library, as regular students.

5. Are not entitled to laboratory privileges without special recommendation of the professor in charge and the permission of the Faculty.

General Duties and Privileges.

General good conduct, such as becomes men and women anywhere, is expected of all. Every student is encouraged in the formation of sound character, by both precept and example, and expected, "upon honor," to maintain a good repute. Failure to do so is met with prompt dismissal. No other rules of personal conduct are announced.

Classes are in session every week-day except Monday, and no student may be absent without excuse. Students cannot honorably leave the College before the close of a term, unless excused beforehand. A full and permanent record of attendance and scholarship shows to each student his standing in the College.

Chapel exercises occupy fifteen minutes before the meeting of classes each morning, and absence from them is noted.

Every Saturday, at 1:30 P. M., the whole body of students gathers for a public lecture, or for rhetorical exercises of the third- and fourth-year classes.

Systematic training in gymnastic and calisthenic exercises is provided for both young men and young women, under teachers appointed by the College.

There are four prosperous literary societies, which meet weekly, in rooms set apart for their use. The Alpha Beta, open to both sexes, and the Ionian, for young women, meet Saturday afternoon. The Webster and the Hamilton admit to membership young men only, and meet on Saturday evening.

The Students' Farmers' Club meets weekly to discuss farm questions, and furnishes a valuable part of the education offered.

A Science Club, and an Engineering Club, conducted largely by the students, afford valuable opportunities for the preparation of original articles and reviews of progress in the arts and sciences.

The Young Men's and the Young Women's Christian Associations hold weekly meetings. They appoint reception committees to meet new students at the trains, to assist them to find suitable boarding places, and to aid them in various ways. The two associations publish, for free distribution, a handbook containing a map of the town, information concerning the College, and other matters of interest to students.

At various times during the year the College halls are opened for

social or literary entertainments for the whole body of the students, or for classes. For the last two years the students have organized and presented courses of entertainments, which have been of high value, and of a moderate expense to each individual.

Earning One's Way.

The courses of study are based upon the supposition that the student is here for study, and a proper grasp of the subjects cannot be obtained by the average student unless the greater part of his time is given to college duties. Students in straightened circumstances are encouraged and aided in every way possible, but unless exceptionally strong, both mentally and physically, are advised to take lighter work by extending the course, if obliged to give any considerable time to self-support. As a rule, students should be prepared with means for at least a term, as some time is necessary for one to make acquaintances and learn where work adapted to him may be had. Sometimes arrangements may be made in advance.

The lines in which employment may be had are various. The College itself employs student labor to the extent of about $900 per month, the rate paid being ten cents per hour. This work is on the farm, in the orchards and gardens, in the shops and printing-office, for the janitor, etc. As one's ability and trustworthiness become established, more responsible and more remunerative work may be had to a limited extent. Many students obtain employment in the town; some work for their board in families in town or in the country near the College. Labor is everywhere respected, and the student who earns his way is honored by all. He will necessarily have little time for the lighter pleasures that may be made incident to college life.

Expenses.

Tuition is free to all, irrespective of residence in Kansas; and no fee for incidental or contingent expenses is charged. Board and washing are not furnished by the College. Board, with furnished room, can be procured in private families at from $2.50 to $3.50 per week, or table board in student clubs from $1.50 to $2.25 per week. Furnished rooms, without board, can be obtained at from $3.50 to $5 per month. Some students board themselves at even less cost, and rooms for the purpose can be obtained at a rent of from $1 to $3.50 a month. Washing costs from 50 cents to $1 a dozen pieces. Ordinary expenditures, aside from clothing and traveling expenses, range from $100 to $200 a year. No institution in the state furnishes an education at less cost to the student.

Business Directions.

General information concerning the College and its work, studies, examinations, grades, boarding places, etc., may be obtained from the President or the Secretary.

Questions, scientific or practical, concerning the different departments of study or work, may be addressed to the several professors and superintendents.

Loans upon school-district bonds are to be obtained from the Loan Commissioner.

Bills against the College should be presented monthly, and, when audited, are paid from the office of the Treasurer.

All payments of principal and interest on account of bonds or land contracts must be made to the state treasurer, at Topeka. Applications for extension of time on land contracts should be sent to the Secretary of the Board of Regents, at Manhattan.

The Industrialist may be addressed through Acting Pres. E. R. Nichols, managing editor. Subscriptions are received by Supt. J. D. Rickman.

Donations for the library should be sent to the Librarian; donations for the museum, to the chairman of the Committee on Museums.

Applications for farmers' institutes should be made as early in the season as possible, addressing Institute Department, Kansas State Agricultural College.

Applications for the publications of the Experiment Station, and general inquiries concerning its work, should be addressed Agricultural Experiment Station; but correspondence concerning special lines of investigation should be sent to the member of the Council in charge of such work.

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